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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:33:38 ; Search time 34.4167 Seconds
(without alignments)
145.924 Million cell updates/sec

Title: US-09-603-832-5
Perfect score: 86
Sequence: 1 NDWEDRYRENMYR 14

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2002273 seqs, 358729299 residues

Total number of hits satisfying chosen parameters: 2002273

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_23Sep04.*

1: Geneseq1980s.*
2: Geneseq1990s.*
3: Geneseq2000s.*
4: Geneseq2001s.*
5: Geneseq2002s.*
6: Geneseq2003ae.*
7: Geneseq2003bs.*
8: Geneseq2004s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	86	100.0	14	AAB66613	Aab66613 Mouse pri
2	86	100.0	15	ADD24281	Add24281 Murine pr
3	86	100.0	16	ABG80700	Abg80700 Prion pro
4	86	100.0	16	ADD24285	Add24285 Murine pr
5	86	100.0	16	ADI40727	Adi40727 Murine pr
6	86	100.0	26	ABG32239	Abg32239 Murine pr
7	86	100.0	26	ABG80699	Abg80699 Prion pro
8	86	100.0	26	ADD24284	Add24284 Murine pr
9	86	100.0	26	ADI40726	Adi40726 Murine pr
10	86	100.0	27	ADE06768	Ade06768 Mouse pri
11	86	100.0	33	AAB15057	Aab15057 Mouse pri
12	86	100.0	42	ADE06769	Ade06769 Mouse pri
13	86	100.0	124	ABG94340	Abg94340 Mouse mpr
14	86	100.0	124	ABG80652	Abg80652 Mouse tru
15	86	100.0	124	ADD24200	Add24200 mPrPt-EK
16	86	100.0	208	AAB07316	Aab07316 Mouse pri
17	86	100.0	208	AAB07327	Aab07327 Mouse pri
18	86	100.0	208	ADJ66133	Adj66133 Mouse pri
19	86	100.0	211	AAB30801	Aab30801 Amino aci
20	86	100.0	225	ABR42793	Abr42793 Rat prion
21	86	100.0	226	ADB85240	Adb85240 Rat prion
22	86	100.0	254	AAR86714	Aar86714 Mouse pri
23	86	100.0	254	AAR69659	Aar69659 Mouse pri
24	86	100.0	254	AAR85900	Aar85900 Mouse pri
25	86	100.0	254	AAY07996	Aay07996 Murine pr

26	86	100.0	254	4	AAB61772	Aab61772 Mouse pri
27	86	100.0	254	4	AAB82118	Aab82118 Murine pr
28	86	100.0	254	4	AAB82111	Aab82111 Murine pr
29	86	100.0	254	4	AAB84522	Aab84522 Amino aci
30	86	100.0	254	4	AAG65852	Aag65852 Mouse pri
31	86	100.0	254	5	AAM50888	Aam50888 Mouse pri
32	86	100.0	254	5	ABP51786	Abp51786 Mouse pri
33	86	100.0	254	5	ABG31906	Abg31906 Mouse pri
34	86	100.0	254	5	ABB04427	Abb04427 Murine pr
35	86	100.0	254	5	AAE15602	Aae15602 Mouse PrP
36	86	100.0	254	5	AAE15609	Aae15609 Mouse PrP
37	86	100.0	254	6	ABU58867	Abu58867 Mouse PrP
38	86	100.0	254	6	AAE33226	Aae33226 Mouse PrP
39	86	100.0	254	6	ABR42792	Abr42792 Mouse pri
40	86	100.0	254	7	ADC59531	Adc59531 Mouse pri
41	86	100.0	254	7	ADC52088	Adc52088 Mouse pri
42	86	100.0	254	7	ADD24194	Add24194 Mouse pri
43	86	100.0	254	7	ADE56264	Ade56264 Rat Prote
44	86	100.0	254	7	ADE06739	Ade06739 Mouse pri
45	86	100.0	254	7	ADE06740	Ade06740 Mouse pri

ALIGNMENTS

RESULT 1
AAB66613
ID AAB66613 standard; peptide, 14 AA.

XX AC AAB66613;
XX DT 05-APR-2001 (first-entry)
XX DE Mouse prion helix 1.
XX KW Coiled-coil; prion; helix.
XX OS Mus sp.
XX PN W0200100010-A1.
XX PD 04-JAN-2001.
XX PF 23-JUN-2000; 2000WO-CA000736.
XX PR 25-JUN-1999; 99US-0141203P.
XX PA (KOND/) KONDEJEWSKI L H.
XX PA (IRVI/) IRVIN R T.
XX PA (HODG/) HODGES R S.
XX FI Kondejewski LH, Irvin RT, Hodges RS;
XX DR WPI; 2001-137855/14.
XX PT Coiled-coil polypeptide compositions useful for generating antibodies
PT against a specific epitope, comprises a specific epitope from alpha-
PT helical surface region of a protein inserted into coiled-coil polypeptide
PT template.
XX PS Disclosure; Fig 4; 25pp; English.
XX CC The present invention relates to a coiled-coil polypeptide with a selected
CC epitope from solvent accessible region of a protein inserted into a
CC coiled-coil polypeptide template. The coiled-coil polypeptides are useful
CC for generating antibodies specific to a selected epitope from a selected
CC protein and also for identifying ligands that selectively bind the alpha-
CC helical segment contained in the native protein. The conformation-
CC specific antibodies are useful as therapeutic and diagnostic ligands
XX SQ Sequence 14 AA;

Query Match 100.0%; Score 86; DB 4; Length 14;

Best Local Similarity 100.0%; Pred. No. 1.6e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | |
Db 1 NDWEDRYRENMYR 14

RESULT 2

ADD24281
ID ADD24281 standard; peptide; 15 AA.
XX AC ADD24281;
XX 15-JAN-2004 (first entry)
XX Murine prion protein PrP peptide prpshort.
XX vaccine composition; virus-like particle; core particle;
KW first attachment site; antigen; antigenic determinant; prion protein;
KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
KW prion disease; Bovine Spongiform Encephalopathy; BSE;
KW Creutzfeldt-Jakob Disease; prion.
XX prion.
OS prion.

XX WO2003059386-A2.
PN WO2003059386-A2.

XX 24-JUL-2003.
PD 24-JUL-2003.

XX 17-JAN-2003; 2003WO-EP000460.
PF 17-JAN-2003; 2003WO-EP000460.

XX 18-JAN-2002; 2002US-00050902.
PR 18-JAN-2002; 2002US-00050902.

XX 21-JAN-2002; 2002WO-1B000166.
PR 21-JAN-2002; 2002WO-1B000166.

XX 08-JUL-2002; 2002US-0392725P.
PR 08-JUL-2002; 2002US-0392725P.

XX 18-JUL-2002; 2002US-0396590P.
PR 18-JUL-2002; 2002US-0396590P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.
PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Bachmann M, Maurer P, Pelliccioli E, Renner WA;
PI Bachmann M, Maurer P, Pelliccioli E, Renner WA;

XX WPI; 2003-598483/56.
DR WPI; 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g.
PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-
PT phage) and at least one prion protein or peptide bound to the virus-like
PT particle.

XX Example 7; Page 102; 246pp; English.
PS Example 7; Page 102; 246pp; English.

XX This invention relates to a novel vaccine composition comprising a virus-
CC like or a core particle with at least one first attachment site and at
CC least one antigen or antigenic determinant that is a prion protein (PrP)
CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
CC being bound to the virus-like or core particle. The vaccine of the
CC invention may have neuroprotective or antiinflammatory activity. The
CC composition is useful as a medicament or in manufacturing a medicament
CC for the treatment or prevention of prion diseases. The prion diseases may
CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
CC Disease. The present sequence is that of a peptide fragment of a prion
CC protein which may be used for the production of the vaccine of the
CC invention.

XX Sequence 15 AA;
SQ Sequence 15 AA;

Query Match 100.0%; Score 86; DB 7; Length 15;
Best Local Similarity 100.0%; Pred. No. 1.7e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | |
Db 2 NDWEDRYRENMYR 15

RESULT 3

ABG80700
ID ABG80700 standard; protein; 16 AA.

XX AC ABG80700;
XX ABG80700;

XX 29-NOV-2002 (first entry)
DT 29-NOV-2002 (first entry)

XX Prion protein peptide cprpshort.
DE Prion protein peptide cprpshort.

XX Molecular antigen array; vaccine; antigen; antimicrobial;
KW molecular scaffold; amyloid beta; Abeta 1-42; influenza;
KW graft versus host disease; IGE-mediated allergic reaction; anaphylaxis;
KW adult respiratory distress syndrome; ARDS; Crohn's disease;
KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;
KW Grave's disease; systemic lupus erythematosus; osteoporosis;
KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;
KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;
KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;
KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;
KW enterokinase; cysteine-containing linker.

XX Unidentified.
OS Unidentified.

XX WO200256907-A2.
PN WO200256907-A2.

XX 25-JUL-2002.
PD 25-JUL-2002.

XX 21-JAN-2002; 2002WO-1B000168.
PF 21-JAN-2002; 2002WO-1B000168.

XX 19-JAN-2001; 2001US-0262379P.
PR 19-JAN-2001; 2001US-0262379P.

XX 04-MAY-2001; 2001US-0288549P.
PR 04-MAY-2001; 2001US-0288549P.

XX 05-OCT-2001; 2001US-0326998P.
PR 05-OCT-2001; 2001US-0326998P.

XX 07-NOV-2001; 2001US-0331045P.
PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.
PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX (NOVS) NOVARTIS PHARMA AG.
PA (NOVS) NOVARTIS PHARMA AG.

XX (MAUR/) MAURER F.
PA (MAUR/) MAURER F.

XX (LECH/) LECHNER R.
PA (LECH/) LECHNER R.

XX (ORTM/) ORTMANN R.
PA (ORTM/) ORTMANN R.

XX (LUEO/) LUEOEND R.
PA (LUEO/) LUEOEND R.

XX (STAU/) STAUFENBIEL M.
PA (STAU/) STAUFENBIEL M.

XX (FREY/) FREY P.
PA (FREY/) FREY P.

XX Maurer P, Lechner F, Ortmann R, Lueoend R, Staufenbiel M, Frey P;
PI Renner WA, Bachmann M, Tissot A, Sebbel P, Plossek C;

XX WPI; 2002-636514/68.
DR WPI; 2002-636514/68.

XX Molecular antigen array used in the production of vaccines for infectious
PT diseases.
PT diseases.

XX Example 8; Page 120; 418pp; English.
PS Example 8; Page 120; 418pp; English.

XX The invention relates to a composition comprising: (a) a non-natural
CC molecular scaffold comprising: (i) a core particle selected from: (1) a
CC core particle of a non-natural origin; and (2) a core particle of natural
CC origin; and (ii) an organiser comprising at least one first attachment
CC site, where the organiser is connected to the core particle by at least
CC one covalent bond; (b) an antigen or antigenic determinant with at least
CC one second attachment site, where the antigen or antigenic determinant is
CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second
CC attachment site is selected from: (i) an attachment site not naturally
CC occurring with the antigen or antigenic determinant; and (ii) an
CC attachment site naturally occurring with the antigen or antigenic
CC determinant, where the second attachment site is capable of association
CC through at least one non-peptide bond to the first attachment site; and
CC where the antigen or antigenic determinant and the scaffold interact
CC through the association to form an ordered and repetitive antigen array.
CC Also included is a process for producing a non-naturally occurring
CC ordered and repetitive antigen array. The composition is used in
CC immunisation and as a vaccine for diseases such as influenza, graft

CC versus host disease, IgE-mediated allergic reactions, anaphylaxis, adult
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,
 CC acute lymphoblastic leukemia, non-Hodgkin's lymphoma, Grave's disease,
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia
 CC gravis, immunoproliferative disease lymphadenopathy.
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,
 CC osteoporosis and infectious diseases. The present sequence is an antigen
 CC for use in the array of the invention. The antigen is modified to possess
 CC a cleavage site (enterokinase or factor Xa) and a Cysteine- containing N-
 CC or C-terminal linker peptide which serves as the attachment point to a
 CC virus like particle or bacterial protein (the scaffold protein)
 XX
 SQ Sequence 16 AA;

Query Match 100.0%; Score 86; DB 5; Length 16;
 Best Local Similarity 100.0%; Pred. No. 1.9e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
 |||||
 Db 3 NDWEDRYRENMYR 16

RESULT 4

ADD24285
 ID ADD24285 standard; peptide; 16 AA.

AC ADD24285;

DT 15-JAN-2004 (first entry)

DE Murine prion protein PrP peptide cprshort.

XX vaccine composition; virus-like particle; core particle;
 KW first attachment site; antigen; antigenic determinant; prion protein;
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;
 KW Creutzfeldt-Jakob Disease; prion.

XX Synthetic.

OS prion.

XX WO2003059386-A2.

XX 24-JUL-2003.

XX 17-JAN-2003; 2003WO-EP000460.

XX 18-JAN-2002; 2002US-00050902.

XX 21-JAN-2002; 2002WO-IB000166.

XX 08-JUL-2002; 2002US-0393725P.

XX 18-JUL-2002; 2002US-0396590P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Bachmann M, Maurer P, Pelliccioli E, Renner WA;

XX WPI; 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g.
 PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-
 PT phage) and at least one prion protein or peptide bound to the virus-like
 PT particle.

XX Example 14; Page 109; 246pp; English.

XX This invention relates to a novel vaccine composition comprising a virus-
 CC like or a core particle with at least one first attachment site and at
 CC least one antigen or antigenic determinant that is a prion protein (PrP)
 CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
 CC being bound to the virus-like or core particle. The vaccine of the
 CC invention may have neuroprotective or antiinflammatory activity. The

CC composition is useful as a medicament or in manufacturing a medicament
 CC for the treatment or prevention of prion diseases. The prion diseases may
 CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
 CC Disease. The present sequence is that of a peptide fragment of a prion
 CC protein which may be used for the production of the vaccine of the
 CC invention.

XX SQ Sequence 16 AA;

Query Match 100.0%; Score 86; DB 7; Length 16;
 Best Local Similarity 100.0%; Pred. No. 1.9e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
 |||||
 Db 3 NDWEDRYRENMYR 16

RESULT 5

ADI40727
 ID ADI40727 standard; peptide; 16 AA.

XX AC ADI40727;

XX 22-APR-2004 (first entry)

XX Murine prion protein peptide cprshort SEQ ID NO:18.

XX virus-like particle; bacteriophage AP205; coat protein; cytostatic;
 KW vaccine; gene therapy; cancer; allergy; asthma; prion protein.

XX Mus musculus.

OS Synthetic.

XX WO2004007538-A2.

XX 22-JAN-2004.

XX 14-JUL-2003; 2003WO-EP007572.

XX 17-JUL-2002; 2002US-0396126P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Bachmann MF, Tissot A, Pumpens P, Cielems I, Renhofa R;

XX WPI; 2004-122882/12.

XX New virus-like particle, useful for preparing a composition for treating
 PT or preventing a disease e.g., cancer, allergy or asthma.

XX Disclosure; SEQ ID NO 18; 170pp; English.

XX The present invention describes a virus-like particle (I) which
 CC comprises: (a) a protein having the 131-amino acid sequence of
 CC bacteriophage AP205 coat protein or the mutant coat protein, see ADI40710
 CC or ADI40712 respectively, or (b) a mutin of the protein of (a). Also
 CC described: (1) a mutin of the recombinant protein having the 131-amino
 CC acid sequence; (2) a vector for producing a AP205 virus like particle
 CC comprising a nucleotide sequence being at least 80, 90, 95 or 99%
 CC identical to that of the sequence comprising 3635 or 3613 bp or producing
 CC a recombinant protein comprising a nucleotide sequence encoding a
 CC polypeptide fused to a protein; (3) a pharmaceutical composition
 CC comprising the composition and a carrier; (4) a process for producing a
 CC method of treating or preventing a disease, disorder or physiologic
 CC conditions in an individual; (6) a nucleic acid molecule comprising 3635-
 CC bp sequence; (7) a host cell containing a nucleic acid or a vector; and
 CC (8) a method of producing the virus-like particle. (I) has cytostatic
 CC activity, and can be used in vaccines, and in gene therapy. The virus-
 CC like particle is useful for preparing a composition for treating or
 CC preventing a disease e.g., cancer, allergy or asthma. The present or
 CC sequence represents a prion protein peptide, which is used in the

CC exemplification of the present invention.

XX Sequence 16 AA;

SQ Query Match 100.0%; Score 86; DB 8; Length 16;
Best Local Similarity 100.0%; Pred. NO. 1.9e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 NDWEDRYRENMYR 14
|||||

Db 3 NDWEDRYRENMYR 16
|||||

RESULT 6

ABG32299
ID ABG32299 standard; peptide; 26 AA.

AC ABG32299;

DT 10-DEC-2002 (first entry)

DE Murine prion protein (PrP) cprpshort peptide.

XX Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;
KW Cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
KW vaccine; infectious disease; prion.

XX Mus sp.

OS WO200256905-A2.

PN 25-JUL-2002.

XX 21-JAN-2002; 2002WO-IB000166.

XX 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;
PI Piossek C;

XX WPI; 2002-627351/67.

XX Molecular antigen array used in the production of vaccines for infectious
PT diseases.

XX Example 8; Page 120; 441pp; English.

XX This invention relates to a novel ordered and repetitive antigen array
CC used in the production of vaccines for infectious diseases. The invention
CC also discloses a composition comprising a non-natural molecular scaffold
CC comprising a core particle selected from a core particle of a non-natural
CC origin and a core particle of natural origin and an organiser comprising
CC at least one first attachment site, where the organiser is connected to
CC the core particle by at least one covalent bond. Also disclosed is an
CC antigen or antigenic determinant with at least one second attachment
CC site, where the antigen or antigenic determinant is amyloid beta peptide
CC (Abeta1-42) or its fragment and where the second attachment site is
CC selected from an attachment site not naturally occurring with the antigen
CC or antigenic determinant and an attachment site naturally occurring with
CC the antigen or antigenic determinant, where the second attachment site is
CC capable of association through at least one non-peptide bond to the first
CC attachment site and where the antigen or antigenic determinant and the
CC scaffold interact through the association to form an ordered and
CC repetitive antigen array. The invention also comprises a coat protein
CC capable of forming a capsid which comprises mutant Qbeta coat proteins
CC having an amino acid sequence selected from five amino acid sequences
CC fully defined in the specification. The compounds of the invention may
CC have antimicrobial, antiallergic, immunomodulatory, cytostatic,

CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in
CC immunization and as a vaccine. The present sequence represents a peptide
CC sequence used to create the compositions of the invention

XX SQ Sequence 26 AA;

Query Match 100.0%; Score 86; DB 5; Length 26;
Best Local Similarity 100.0%; Pred. NO. 3.1e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 NDWEDRYRENMYR 14
|||||

Db 13 NDWEDRYRENMYR 26
|||||

RESULT 7

ABG80699
ID ABG80699 standard; protein; 26 AA.

AC ABG80699;

XX 29-NOV-2002 (first entry)

DE Prion protein peptide cprplong.

XX Molecular antigen array; vaccine; antigen; antimicrobial;
KW molecular scaffold; amyloid beta; Abeta 1-42; influenza;
KW graft versus host disease; Igs-mediated allergic reaction; anaphylaxis;
KW adult respiratory distress syndrome; ARDS; Crohn's disease;
KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;
KW Grave's disease; systemic lupus erythematosus; osteoporosis;
KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;
KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;
KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;
KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;
KW enterokinase; cysteine-containing linker.

OS Unidentified.

XX WO200256907-A2.

XX 25-JUL-2002.

XX 21-JAN-2002; 2002WO-IB000168.

XX 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX (NOVS) NOVARTIS PHARMA AG.

XX (MAUR) MAURER P.

XX (LECH) LECHNER F.

XX (ORTM) ORTMANN R.

XX (LUEC) LUECOEND R.

XX (STAUF) STAUFENBIEL M.

XX (FREY) FREY P.

XX Maurer P, Lechner F, Ortmann R, Lueoend R, Staufenbiel M, Frey P;
PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;
XX WPI; 2002-636514/68.

XX Molecular antigen array used in the production of vaccines for infectious
PT diseases.

XX Example 8; Page 120; 418pp; English.

XX The invention relates to a composition comprising: (a) a non-natural
CC molecular scaffold comprising: (i) a core particle selected from: (1) a
CC core particle of a non-natural origin; and (2) a core particle of natural
CC origin; and (ii) an organiser comprising at least one first attachment

CC site, where the organism is connected to the core particle by at least
 CC one covalent bond; (b) an antigen or antigenic determinant with at least
 CC one second attachment site, where the antigen or antigenic determinant is
 CC amyloid beta peptide (A β 1-42) or its fragment, and where the second
 CC attachment site is selected from: (i) an attachment site not naturally
 CC occurring with the antigen or antigenic determinant; and (ii) an
 CC attachment site naturally occurring with the antigen or antigenic
 CC determinant, where the second attachment site is capable of association
 CC through at least one non-peptide bond to the first attachment site; and
 CC where the antigen or antigenic determinant and the scaffold interact
 CC through the association to form an ordered and repetitive antigen array.
 CC Also included is a process for producing a non-naturally occurring
 CC ordered and repetitive antigen array. The composition is used in
 CC immunisation and as a vaccine for diseases such as influenza, graft
 CC versus host disease, IGE-mediated allergic reactions, anaphylaxis, adult
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia
 CC gravis, immunoproliferative disease lymphadenopathy,
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,
 CC osteoporosis and infectious diseases. The present sequence is an antigen
 CC for use in the array of the invention. The antigen is modified to possess
 CC a cleavage site (enterokinase or factor Xa) and a cysteine- containing N-
 CC or C-terminal linker peptide which serves as the attachment point to a
 CC virus like particle or bacterial protein (the scaffold protein)

XX SQ Sequence 26 AA;

Query Match 100.0%; Score 86; DB 5; Length 26;
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 NDWEDRYRENMYR 14
 DB 13 NDWEDRYRENMYR 26
 |||||

RESULT 8
 ADD24284
 ID ADD24284 standard; peptide; 26 AA.

XX AC ADD24284;

XX DT 15-JAN-2004 (first entry)

XX DE Murine prion protein PrP peptide cprlong.

XX KW vaccine composition; virus-like particle; core particle;
 KW first attachment site; antigen; antigenic determinant; prion protein;
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;
 KW Creutzfeldt-Jakob Disease; prion.

XX OS Synthetic.

XX OS Prion.

XX FN WO2003059386-A2.

XX PD 24-JUL-2003.

XX PF 17-JAN-2003; 2003WO-EP000460.

XX PR 18-JAN-2002; 2002US-00050902.

XX PR 21-JAN-2002; 2002WO-IB000166.

XX PR 08-JUL-2002; 2002US-0393725P.

XX PR 18-JUL-2002; 2002US-0396590P.

XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX XX Bachmann M, Maurer P, Pelliccioli E, Renner WA;

XX XX WPI; 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g.
 PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-
 PT phase) and at least one prion protein or peptide bound to the virus-like
 PT particle.

XX Example 14; Page 109; 246pp; English.

XX This invention relates to a novel vaccine composition comprising a virus-
 CC like or a core particle with at least one first attachment site and at
 CC least one antigen or antigenic determinant that is a prion protein (PrP)
 CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
 CC being bound to the virus-like or core particle. The vaccine of the
 CC invention may have neuroprotective or antiinflammatory activity. The
 CC composition is useful as a medicament or in manufacturing a medicament
 CC for the treatment or prevention of prion diseases. The prion diseases may
 CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
 CC Disease. The present sequence is that of a peptide fragment of a prion
 CC protein which may be used for the production of the vaccine of the
 CC invention.

XX SQ Sequence 26 AA;

Query Match 100.0%; Score 86; DB 7; Length 26;
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 NDWEDRYRENMYR 14
 DB 13 NDWEDRYRENMYR 26
 |||||

RESULT 9
 ADI40726
 ID ADI40726 standard; peptide; 26 AA.

XX AC ADI40726;

XX DT 22-APR-2004 (first entry)

XX DE Murine prion protein peptide cprlong SEQ ID NO:17.

XX KW virus-like particle; bacteriophage AP205; coat protein; cytostatic;
 KW vaccine; Gene therapy; cancer; allergy; asthma; prion protein.

XX OS Mus musculus.

XX OS Synthetic.

XX FN WO2004007538-A2.

XX PD 22-JAN-2004.

XX PF 14-JUL-2003; 2003WO-EP007572.

XX PR 17-JUL-2002; 2002US-0396126P.

XX XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX XX Bachmann MP, Tissot A, Pumpens P, Cielens I, Renhofa R;

XX XX WPI; 2004-122882/12.

XX New virus-like particle, useful for preparing a composition for treating
 or preventing a disease e.g., cancer, allergy or asthma.

XX Disclosure; SEQ ID NO 17; 170pp; English.

XX The present invention describes a virus-like particle (I) which
 CC comprises: (a) a protein having the 131-amino acid sequence of
 CC bacteriophage AP205 coat protein or the mutant coat protein, see ADI40710
 CC or ADI40712 respectively; or (b) a mutein of the protein of (a). Also
 CC described: (1) a mutein of the recombinant protein having the 131-amino
 CC acid sequence; (2) a vector for producing a AP205 virus like particle

CC comprising a nucleotide sequence being at least 80, 90, 95 or 99%
 CC identical to that of the sequence comprising 3635 or 3613 bp or producing
 CC a recombinant protein comprising a nucleotide sequence encoding a
 CC polypeptide fused to a protein; (3) a pharmaceutical composition
 CC comprising the composition and a carrier; (4) a process for producing a
 CC non-naturally occurring, ordered and repetitive antigen array; (5) a
 CC method of treating or preventing a disease, disorder or physiologic
 CC conditions in an individual; (6) a nucleic acid molecule comprising 3635-
 CC bp sequence; (7) a host cell containing a nucleic acid or a vector; and
 CC (8) a method of producing the virus-like particle. (I) has cytostatic
 CC activity, and can be used in vaccines, and in gene therapy. The virus-
 CC like particle is useful for preparing a composition for treating or
 CC preventing a disease e.g., cancer, allergy or asthma. The present
 CC sequence represents a prion protein peptide, which is used in the
 CC exemplification of the present invention.

XX Sequence 26 AA;

Query Match 100.0%; Score 86; DB 8; Length 26;
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
 DB 13 NDWEDRYRENMYR 26
 |||||

RESULT 10

AD06768
 ID ADS06768 standard; peptide; 27 AA.

AC AD06768;

DT 29-JAN-2004 (first entry)

DE Mouse prion protein related peptide.

XX hybrid polypeptide; protein aggregation; prion polypeptide;
 KW neuroprotective; nootropic; antidiabetic; anticonvulsant;
 KW cerebrotective; antiparkinsonian; cytotatic; nephrotropic; cardiant;
 KW antiinflammatory; antiarteriosclerotic; gene therapy;
 KW Creutzfeldt-Jakob disease; scrapie and bovine spongiform encephalopathy;
 KW Alzheimer's disease; Type II diabetes; Huntington's disease;
 KW immunoglobulin amyloidosis; amyloidosis; chronic inflammatory disease;
 KW amyotrophic lateral sclerosis; Pick's disease; Parkinson's disease;
 KW Frontotemporal dementia; multiple myeloma; plasma cell dyscrasia;
 KW familial amyloidotic polyneuropathy; medullary carcinoma;
 KW chronic renal failure; congestive heart failure; chronic inflammation;
 KW atherosclerosis.

OS Synthetic.
 OS Mus musculus.

PN WO2003085086-A2.

XX 16-OCT-2003.

XX 08-APR-2003; 2003WO-US010856.

XX 09-APR-2002; 2002US-0371610P.

XX (SRI) SCRIPPS RES INST.

XX Burton DR, Williamson RA, Moroncini G;

XX WPI; 2003-877028/81.

XX New motif-grafted hybrid polypeptides binding to the infectious form of a
 PT prion, useful for diagnosing or treating diseases of protein aggregation
 PT or conformation, e.g. amyloidosis, Alzheimer's disease, renal failure or
 PT diabetes.

XX Example 2; Fig 1A; 115pp; English.

XX

CC The present invention describes a hybrid polypeptide (I) comprising: (a)
 CC a polypeptide motif containing a sufficient number of contiguous amino
 CC acid residues from a polypeptide associated with a disease of protein
 CC aggregation or conformation to bind an aggregating form of the
 CC polypeptide or to a disease-associate conformer of the polypeptide; and
 CC (b) an additional amino acids from a polypeptide other than the
 CC polypeptide from which the motif is derived, where the resulting hybrid
 CC polypeptide binds with greater affinity to a disease causing or
 CC infectious conformer of the polypeptide that is the source of the
 CC polypeptide motif compared to a benign form of the polypeptide. Also
 CC described: (1) a nucleic acid molecule encoding (I); (2) a vector
 CC comprising the nucleic acid molecule; (3) a cell comprising the vector;
 CC (4) detecting an isoform or a prpsc form of a prion polypeptide or a
 CC polypeptide associated with a disease of protein aggregation, in a sample
 CC above; (6) detecting cells that contain a protein conformer associated
 CC with a disease of protein aggregation; (7) preparing a hybrid molecule
 CC that specifically interacts with one conformer of a protein involved in
 CC the disease mentioned above; and (8) an anti-idiotypic antibody that
 CC specifically binds to an infectious form of a prion protein. (I) has
 CC neuroprotective, nootropic, antidiabetic, anticonvulsant,
 CC cerebrotective, antiparkinsonian, cytotatic, nephrotropic, cardiant,
 CC antiinflammatory and antiarteriosclerotic activities, and can be used in
 CC gene therapy. The composition and methods of the present invention can be
 CC used in diagnosing or treating diseases of protein aggregation or
 CC conformation, such as Creutzfeldt-Jakob disease, scrapie and bovine
 CC spongiform encephalopathy, Alzheimer's disease, Type II diabetes, Pick's
 CC Huntington's disease, immunoglobulin amyloidosis, reactive amyloidosis
 CC associated with chronic inflammatory disease, hereditary systemic
 CC amyloidosis associated with autosomal dominant inheritance of variant
 CC transthyretin gene, amyotrophic lateral sclerosis, Pick's disease,
 CC Parkinson's disease, frontotemporal dementia, multiple myeloma, plasma
 CC cell dyscrasias, familial amyloidotic polyneuropathy, medullary carcinoma
 CC of thyroid, chronic renal failure, congestive heart failure, senile
 CC cardiac and systemic amyloidosis, chronic inflammation, atherosclerosis
 CC or familial amyloidosis. The present sequence is used in the
 CC exemplification of the present invention.

XX Sequence 27 AA;

Query Match 100.0%; Score 86; DB 7; Length 27;
 Best Local Similarity 100.0%; Pred. No. 3.2e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
 |||||

DB 10 NDWEDRYRENMYR 23

RESULT 11

AAB15057

ID AAB15057 standard; peptide; 33 AA.

AC AAB15057;

DT 18-DEC-2000 (first entry)

XX Mouse prion protein peptide homologous to ovine sequence 145-177.

XX Prion; PrP; guanidine thiocyanate; gdnSCN; TSE; BSE;
 KW transmissible spongiform encephalopathy; antibody;
 KW bovine spongiform encephalopathy; sheep; cattle; human.

XX Mus sp.

XX WO200048003-A1.

XX 17-AUG-2000.

XX 09-FEB-2000; 2000WO-NL000079.

XX 11-FEB-1999; 99EP-00200391.

XX PA (DIEN-) STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK.

XX PI Garsen GJ, Jacobs JG, Langeveld JPM, Smits MA, Van Keulen LJM;

XX PI Schreuder BEC, Bossers A;

XX DR WPI; 2000-506099/45.

XX PT Use of guanidine thiocyanate for reducing risk of false-positive results

XX PT in testing mammalian sample for aberrant prion protein, useful for

XX PT detection of transmissible spongiform encephalopathies.

XX PS Disclosure; Fig 2; 49pp; English.

XX CC The present invention relates to a method for reducing the risk of

XX CC scoring a false positive test result in testing a sample for aberrant

XX CC prion protein. The method involves the use of guanidine thiocyanate

XX CC (gdnSCN) or its functional equivalent. This test is highly useful for

XX CC testing for transmissible spongiform encephalopathies (TSEs) such as BSE

XX CC (bovine spongiform encephalopathy). The method allows a faster, simpler

XX CC and more reliable method for monitoring cattle and sheep for the presence

XX CC of aberrant prion protein before it reaches the human and animal food

XX CC chain. In the invention antipeptide antibodies were raised against sheep

XX CC prion protein peptides. The present sequence is the mouse prion protein

XX CC sequence homologous to the sheep peptide indicated

XX SQ Sequence 33 AA;

Query Match 100.0%; Score 86; DB 3; Length 33;

Best Local Similarity 100.0%; Pred. No. 4e-06;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 NWEDRYRYENMYR 14

DB 2 NWEDRYRYENMYR 15

RESULT 12

ABE06769

ID ADE06769 standard; peptide; 42 AA.

AC ADE06769;

XX 29-JAN-2004 (first entry)

DE Mouse prion protein related peptide.

KW hybrid polypeptide; protein aggregation; prion polypeptide;

KW neuroprotective; nontropic; antidiabetic; anticonvulsant;

KW cerebroprotective; antiparkinsonian; cytoskeletal; nephrotropic; cardiant;

KW antiinflammatory; antiparkinsonian; cytoskeletal; nephrotropic; cardiant;

KW Creutzfeldt-Jakob disease; scrapie and bovine spongiform encephalopathy;

KW Alzheimer's disease; Type II diabetes; Huntington's disease;

KW immunoglobulin amyloidosis; amyloidosis; chronic inflammatory disease;

KW frontotemporal lateral sclerosis; Pick's disease; Parkinson's disease;

KW frontotemporal dementia; multiple myeloma; plasma cell dyscrasia;

KW familial amyloidotic polyneuropathy; medullary carcinoma;

KW chronic renal failure; congestive heart failure; chronic inflammation;

KW atherosclerosis.

OS Synthetic.

OS Mus musculus.

XX WO2003085086-A2.

PN 16-OCT-2003.

PD 08-APR-2003; 2003WO-US010856.

PF 09-APR-2002; 2002US-0371610P.

PR (SCRI) SCRIPPS RES INST.

XX PA

Burton DR, Williamson RA, Moroncini G;

WPI; 2003-877028/81.

New motif-grafted hybrid polypeptides binding to the infectious form of a prion, useful for diagnosing or treating diseases of protein aggregation or conformation, e.g. amyloidosis, Alzheimer's disease, renal failure or diabetes.

Example 2; Fig 1A; 115pp; English.

The present invention describes a hybrid polypeptide (I) comprising: (a) a polypeptide motif containing a sufficient number of contiguous amino acid residues from a polypeptide associated with a disease of protein aggregation or conformation to bind an aggregating form of the polypeptide; and (b) an additional amino acids from a polypeptide other than the polypeptide from which the motif is derived, where the resulting hybrid polypeptide binds with greater affinity to a disease causing or infectious conformer of the polypeptide than is the source of the polypeptide motif compared to a benign form of the polypeptide. Also described: (1) a nucleic acid molecule encoding (1); (2) a vector comprising the nucleic acid molecule; (3) a cell comprising the vector; (4) detecting an isoform or a PrPSc form of a prion polypeptide or a polypeptide associated with a disease of protein aggregation in a sample; (5) a solid support comprising a plurality of polypeptides described above; (6) detecting cells that contain a protein conformer associated with a disease of protein aggregation; (7) preparing a hybrid molecule that specifically interacts with one conformer of a protein involved in the disease mentioned above; and (8) an anti-idiotypic antibody that specifically binds to an infectious form of a prion protein. (I) has neuroprotective, nontropic, antidiabetic, anticonvulsant, cerebroprotective, antiparkinsonian, cytoskeletal, nephrotropic, cardiant, antiinflammatory and antiarteriosclerotic activities, and can be used in gene therapy. The composition and methods of the present invention can be used in diagnosing or treating diseases of protein aggregation or conformation, such as Creutzfeldt-Jakob disease, scrapie and bovine spongiform encephalopathy, Alzheimer's disease, Type II diabetes, Huntington's disease, immunoglobulin amyloidosis, reactive amyloidosis associated with chronic inflammatory disease, hereditary systemic amyloidosis associated with autosomal dominant inheritance of variant transthyretin gene, amyotrophic lateral sclerosis, Pick's disease, Parkinson's disease, frontotemporal dementia, multiple myeloma, plasma cell dyscrasias, familial amyloidotic polyneuropathy, medullary carcinoma of thyroid, chronic renal failure, congestive heart failure, senile cardiac and systemic amyloidosis, chronic inflammation, atherosclerosis or familial amyloidosis. The present sequence is used in the exemplification of the present invention.

Sequence 42 AA;

Query Match 100.0%; Score 86; DB 7; Length 42;

Best Local Similarity 100.0%; Pred. No. 5.1e-06;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 NWEDRYRYENMYR 14

DB 25 NWEDRYRYENMYR 39

RESULT 13

ABG94340

ID ABG94340 standard; protein; 124 AA.

XX AC ABG94340;

XX 10-DEC-2002 (first entry)

DE Mouse mPrP protein.

XX Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;

XX cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;

XX vaccine; infectious disease.

OS Mus sp.
 PN WO200256905-A2.
 XX 25-JUL-2002.
 PD 21-JAN-2002; 2002WO-IB000166.
 PF 19-JAN-2001; 2001US-0262379P.
 PR 04-MAY-2001; 2001US-0288549P.
 PR 05-OCT-2001; 2001US-0326998P.
 PR 07-NOV-2001; 2001US-0331045P.
 XX (CYTO-) CYTOS BIOTECHNOLOGY AG.
 PA Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;
 PI Piossek C;
 XX WPI; 2002-627351/67.
 DR Molecular antigen array used in the production of vaccines for infectious
 PT diseases.
 XX Disclosure; Page 438; 44pp; English.
 CC This invention relates to a novel ordered and repetitive antigen array
 CC used in the production of vaccines for infectious diseases. The invention
 CC also discloses a composition comprising a non-natural molecular scaffold
 CC comprising a core particle selected from a core particle of a non-natural
 CC origin and a core particle of natural origin and an organiser comprising
 CC at least one first attachment site, where the organiser is connected to
 CC the core particle by at least one covalent bond. Also disclosed is an
 CC antigen or antigenic determinant with at least one second attachment
 CC site, where the antigen or antigenic determinant is amyloid beta peptide
 CC (Abeta1-42) or its fragment and where the second attachment site is
 CC selected from an attachment site not naturally occurring with the antigen
 CC or antigenic determinant and an attachment site naturally occurring with
 CC the antigen or antigenic determinant, where the second attachment site is
 CC capable of association through at least one non-peptide bond to the first
 CC attachment site and where the antigen or antigenic determinant and the
 CC scaffold interact through the association to form an ordered and
 CC repetitive antigen array. The invention also comprises a coat protein
 CC having an amino acid sequence selected from five amino acid sequences
 CC fully defined in the specification. The compounds of the invention may
 CC have antimicrobial, antiallergic, immunomodulatory, cytostatic,
 CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in
 CC immunisation and as a vaccine. The present sequence represents a protein
 CC sequence used to create the compositions of the invention
 XX Sequence 124 AA;
 SQ
 Query Match 100.0%; Score 86; DB 5; Length 124;
 Best Local Similarity 100.0%; Pred. No. 1.6e-05;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 NDWEDRYRENMYR 14
 Db 23 NDWEDRYRENMYR 36
 RESULT 14
 ABG80652
 ID ABG80652 standard; protein; 124 AA.
 XX ABG80652;
 AC ABG80652;
 XX 29-NOV-2002 (first entry)
 DT Mouse truncated prion protein with C terminal cysteine containing linker.
 DE
 XX Molecular antigen array; vaccine; antigen; antimicrobial; mutant;
 KW

KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;
 KW graft versus host disease; IGE-mediated allergic reaction; anaphylaxis;
 KW adult respiratory distress syndrome; ARDS; Crohn's disease;
 KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;
 KW Grave's disease; systemic lupus erythematosus; osteoporosis;
 KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;
 KW immunoproliferative disease lymphadenopathy; Alzheimers disease;
 KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;
 KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;
 KW enterokinase; cysteine-containing linker.
 XX Mus sp.
 OS Synthetic.
 OS WO200256907-A2.
 PN 25-JUL-2002.
 PD 21-JAN-2002; 2002WO-IB000168.
 PF 19-JAN-2001; 2001US-0262379P.
 PR 04-MAY-2001; 2001US-0288549P.
 PR 05-OCT-2001; 2001US-0326998P.
 PR 07-NOV-2001; 2001US-0331045P.
 XX (CYTO-) CYTOS BIOTECHNOLOGY AG.
 PA (NOVS) NOVARTIS PHARMA AG.
 PA (MAUR/) MAURER P.
 PA (LECH/) LECHNER F.
 PA (ORTM/) ORTMANN R.
 PA (LUEB/) LUEBEND R.
 PA (STAU/) STAUFENBIEL M.
 PA (FREY/) FREY P.
 XX Maurer P, Lechner F, Ortmann R, Luebend R, Staufenbiel M, Frey P;
 PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;
 XX WPI; 2002-636514/68.
 DR Molecular antigen array used in the production of vaccines for infectious
 PT diseases.
 XX Example 7; Page 415; 418pp; English.
 PS The invention relates to a composition comprising: (a) a non-natural
 CC molecular scaffold comprising: (i) a core particle selected from: (1) a
 CC core particle of a non-natural origin; and (2) a core particle of natural
 CC origin; and (ii) an organiser comprising at least one first attachment
 CC site, where the organiser is connected to the core particle by at least
 CC one covalent bond; (b) an antigen or antigenic determinant with at least
 CC one second attachment site, where the antigen or antigenic determinant is
 CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second
 CC attachment site is selected from: (i) an attachment site not naturally
 CC occurring with the antigen or antigenic determinant; and (ii) an
 CC attachment site naturally occurring with the antigen or antigenic
 CC determinant, where the second attachment site is capable of association
 CC through at least one non-peptide bond to the first attachment site; and
 CC where the antigen or antigenic determinant and the scaffold interact
 CC through the association to form an ordered and repetitive antigen array.
 CC Also included is a process for producing a non-naturally occurring
 CC ordered and repetitive antigen array. The composition is used in
 CC immunisation and as a vaccine for diseases such as influenza, graft
 CC versus host disease, IGE-mediated allergic reactions, anaphylaxis, adult
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,
 CC systemic lupus erythematosus, inflammatory immune disease, myasthenia
 CC gravis, immunoproliferative disease lymphadenopathy.
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimers disease,
 CC osteoporosis and infectious diseases. The present sequence is a modified
 CC antigen for use in the array of the invention. The antigen is modified to
 CC possess a cleavage site (enterokinase or factor Xa) and a Cysteine-
 CC containing N- or C-terminal linker peptide which serves as the attachment

CC point to a virus like particle or bacterial protein (the scaffold
CC protein)
XX
SQ Sequence 124 AA;

Query Match 100.0%; Score 86; DB 5; Length 124;
Best Local Similarity 100.0%; Pred. No. 1.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 23 NDWEDRYRENMYR 36

RESULT 15
ADD24200
ID ADD24200 standard; protein; 124 AA.
XX AC ADD24200;
XX DT 15-JAN-2004 (first entry)
XX DE mPrPt-EK-Fc* cleaved protein sequence.
XX KW vaccine composition; virus-like particle; core particle;
KW first attachment site; antigen; antigenic determinant; prion protein;
KW PrP, PrP peptide, vaccine; neuroprotective, antiinflammatory,
KW prion disease; Bovine Spongiform Encephalopathy; BSE;
KW Creutzfeldt-Jakob disease; prion; mPrPt-EK-Fc*.

XX Unidentified.
OS prion.
XX PN WO2003059386-A2.
XX PD 24-JUL-2003.
XX PF 17-JAN-2003; 2003WO-EP000460.
XX PR 18-JAN-2002; 2002US-00050902.
XX PR 21-JAN-2002; 2002WO-IB000166.
XX PR 08-JUL-2002; 2002US-0393725P.
XX PR 18-JUL-2002; 2002US-0396590P.
XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.
XX Bachmann M, Maurer P, Pelliccioli E, Renner WA;
XX WPI; 2003-598483/56.
XX PT A vaccine composition for preventing or treating prion diseases (e.g.
XX PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-
XX PT phage) and at least one prion protein or peptide bound to the virus-like
XX PT particle.

XX Example 13; SEQ ID NO 93; 246pp; English.
XX CC This invention relates to a novel vaccine composition comprising a virus-
XX CC like or a core particle with at least one first attachment site and at
XX CC least one antigen or antigenic determinant that is a prion protein (PrP)
XX CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
XX CC being bound to the virus-like or core particle. The vaccine of the
XX CC invention may have neuroprotective or antiinflammatory activity. The
XX CC composition is useful as a medicament or in manufacturing a medicament
XX CC for the treatment or prevention of prion diseases. The prion diseases may
XX CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
XX CC disease. The present sequence is the amino acid sequence of the cleaved
XX CC protein translated from a mouse prion protein (PrP) vector (mPrPt-EK-Fc*)
XX CC which was used during the exemplification of the invention.

XX Sequence 124 AA;

Query Match 100.0%; Score 86; DB 7; Length 124;

Best Local Similarity 100.0%; Pred. No. 1.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NDWEDRYRENMYR 14
Db 23 NDWEDRYRENMYR 36
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OM protein - protein search, using sw model

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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20: /cgn2_6/ptodata/2/pubaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	86	100.0	15	14	US-10-346-190-160
2	86	100.0	16	14	US-10-346-190-164
3	86	100.0	16	15	US-10-617-876-18
4	86	100.0	26	14	US-10-346-190-163
5	86	100.0	26	15	US-10-617-876-17
6	86	100.0	124	14	US-10-050-902-324
7	86	100.0	124	14	US-10-050-898-324
8	86	100.0	124	14	US-10-346-190-93
9	86	100.0	164	9	US-09-745-003-12
10	86	100.0	225	14	US-10-301-488A-25
11	86	100.0	225	15	US-10-301-448-25
12	86	100.0	226	14	US-10-205-194-121
13	86	100.0	254	9	US-09-823-494-19

14	86	100.0	254	9	US-09-823-494-28	Sequence 28, Appl
15	86	100.0	254	9	US-09-943-908-1	Sequence 1, Appl
16	86	100.0	254	13	US-10-106-574-5	Sequence 5, Appl
17	86	100.0	254	13	US-10-106-574-6	Sequence 6, Appl
18	86	100.0	254	13	US-10-106-574-7	Sequence 7, Appl
19	86	100.0	254	13	US-10-106-574-8	Sequence 8, Appl
20	86	100.0	254	14	US-10-355-780-10	Sequence 10, Appl
21	86	100.0	254	14	US-10-304-630-20	Sequence 20, Appl
22	86	100.0	254	14	US-10-304-630-21	Sequence 21, Appl
23	86	100.0	254	14	US-10-304-630-22	Sequence 22, Appl
24	86	100.0	254	14	US-10-301-488A-24	Sequence 24, Appl
25	86	100.0	254	14	US-10-410-907A-9	Sequence 10, Appl
26	86	100.0	254	14	US-10-410-907A-10	Sequence 10, Appl
27	86	100.0	254	14	US-10-346-190-87	Sequence 87, Appl
28	86	100.0	254	14	US-10-435-602-1	Sequence 1, Appl
29	86	100.0	254	15	US-10-438-628-2	Sequence 2, Appl
30	86	100.0	254	15	US-10-301-448-24	Sequence 24, Appl
31	86	100.0	254	16	US-10-470-848-9	Sequence 9, Appl
32	86	100.0	350	14	US-10-050-902-323	Sequence 323, App
33	86	100.0	350	14	US-10-050-898-323	Sequence 323, App
34	86	100.0	350	14	US-10-346-190-92	Sequence 92, App
35	86	100.0	439	13	US-10-115-984-2	Sequence 2, Appl
36	77	89.5	15	14	US-10-346-190-117	Sequence 117, App
37	77	89.5	15	14	US-10-346-190-119	Sequence 119, App
38	77	89.5	15	14	US-10-346-190-121	Sequence 121, App
39	77	89.5	16	14	US-10-346-190-127	Sequence 127, App
40	77	89.5	16	14	US-10-346-190-129	Sequence 129, App
41	77	89.5	16	14	US-10-346-190-131	Sequence 131, App
42	77	89.5	16	15	US-10-617-876-24	Sequence 24, Appl
43	77	89.5	25	14	US-10-346-190-116	Sequence 116, App
44	77	89.5	25	14	US-10-346-190-118	Sequence 118, App
45	77	89.5	25	14	US-10-346-190-120	Sequence 120, App

ALIGNMENTS

RESULT 1
US-10-346-190-160
; Sequence 160, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prio Protein Carrier-Conjugates
; FILE REFERENCE: 1700 0290003
; CURRENT APPLICATION NUMBER: US/10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 160
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Murine prpshort
US-10-346-190-160

Query Match 100.0%; Score 86; DB 14; Length 15;
Best Local Similarity 100.0%; Pred. No. 3.2e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 NDWEDRYRENMYR 14

Db 2 NDWEDRYRENMYR 15
|||||

RESULT 2

US-10-346-190-164
; Sequence 164, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; CURRENT APPLICATION NUMBER: US/10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 164
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Murine cprpshort
US-10-346-190-164

Query Match 100.0%; Score 86; DB 14; Length 16;
Best Local Similarity 100.0%; Pred. No. 3.4e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
|||||

Db 3 NDWEDRYRENMYR 16
|||||

RESULT 3

US-10-617-876-18
; Sequence 18, Application US/10617876
; Publication No. US20040076611A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin F
; APPLICANT: Tissot, Alain
; APPLICANT: Pumpens, Paul
; APPLICANT: Cielens, Indulis
; APPLICANT: Renhofs, Regina
; TITLE OF INVENTION: Molecular Antigen Arrays
; FILE REFERENCE: 1700.0310001
; CURRENT APPLICATION NUMBER: US/10/617,876
; CURRENT FILING DATE: 2003-07-14
; PRIOR APPLICATION NUMBER: 60/396,126
; PRIOR FILING DATE: 2002-07-17
; NUMBER OF SEQ ID NOS: 125
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 18
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: prion peptide "cprpshort"
US-10-617-876-18

Query Match 100.0%; Score 86; DB 15; Length 16;
Best Local Similarity 100.0%; Pred. No. 3.4e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
|||||

Db 3 NDWEDRYRENMYR 16
|||||

RESULT 4

US-10-346-190-163
; Sequence 163, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 163
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Murine cprplong
US-10-346-190-163

Query Match 100.0%; Score 86; DB 14; Length 26;
Best Local Similarity 100.0%; Pred. No. 5.5e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
|||||

Db 13 NDWEDRYRENMYR 26
|||||

RESULT 5

US-10-617-876-17
; Sequence 17, Application US/10617876
; Publication No. US20040076611A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin F
; APPLICANT: Tissot, Alain
; APPLICANT: Pumpens, Paul
; APPLICANT: Cielens, Indulis
; APPLICANT: Renhofs, Regina
; TITLE OF INVENTION: Molecular Antigen Arrays
; FILE REFERENCE: 1700.0310001
; CURRENT APPLICATION NUMBER: US/10/617,876
; CURRENT FILING DATE: 2003-07-14
; PRIOR APPLICATION NUMBER: 60/396,126
; PRIOR FILING DATE: 2002-07-17
; NUMBER OF SEQ ID NOS: 125
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 17
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: prion peptide "cprplong"
US-10-617-876-17

Query Match 100.0%; Score 86; DB 15; Length 26;

Best Local Similarity 100.0%; Pred. No. 5.5e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
Db 13 NDWEDRYRENMYR 26

RESULT 6
US-10-050-902-324
; Sequence 324, Application US/10050902
; Publication No. US20030175290A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Seibel, Peter
; APPLICANT: Piossek, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190004
; CURRENT APPLICATION NUMBER: US/10/050.902
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 324
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: mPrPt construct
US-10-050-902-324

Query Match 100.0%; Score 86; DB 14; Length 124;
Best Local Similarity 100.0%; Pred. No. 2.7e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
Db 23 NDWEDRYRENMYR 36

RESULT 7
US-10-050-898-324
; Sequence 324, Application US/10050898
; Publication No. US20030175711A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Seibel, Peter
; APPLICANT: Piossek, Christine
; APPLICANT: Ortman, Rainer
; APPLICANT: Luond, Rainer
; APPLICANT: Staufenberg, Matthias
; APPLICANT: Frey, Peter
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190005
; CURRENT APPLICATION NUMBER: US/10/050.898
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19

; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 324
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Protein sequence of mPrPt
US-10-050-898-324

Query Match 100.0%; Score 86; DB 14; Length 124;
Best Local Similarity 100.0%; Pred. No. 2.7e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
Db 23 NDWEDRYRENMYR 36

RESULT 8
US-10-346-190-93
; Sequence 93, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346.190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050.902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 93
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: mPrPt
US-10-346-190-93

Query Match 100.0%; Score 86; DB 14; Length 124;
Best Local Similarity 100.0%; Pred. No. 2.7e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
Db 23 NDWEDRYRENMYR 36

RESULT 9
US-09-745-003-12
; Sequence 12, Application US/09745003
; Patent No. US20020042122A1
; GENERAL INFORMATION:
; APPLICANT: Bazan, Fernando J

; TITLE OF INVENTION: Human Proteins; Related Reagents
; FILE REFERENCE: Prp2
; CURRENT APPLICATION NUMBER: US/09/745,003
; CURRENT FILING DATE: 2000-12-20
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 12
; LENGTH: 164
; TYPE: Prt
; ORGANISM: rodent
US-09-745-003-12

Query Match 100.0%; Score 86; DB 9; Length 164;
Best Local Similarity 100.0%; Pred. No. 3.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 52 NDWEDRYRENMYR 65

RESULT 10
US-10-301-488A-25
; Sequence 25, Application US/10301488A
; Publication No. US20030166558A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,488A
; CURRENT FILING DATE: 2002-11-21
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 25
; LENGTH: 225
; TYPE: Prt
; ORGANISM: Rat
US-10-301-488A-25

Query Match 100.0%; Score 86; DB 14; Length 225;
Best Local Similarity 100.0%; Pred. No. 5e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 115 NDWEDRYRENMYR 128

RESULT 11
US-10-301-448-25
; Sequence 25, Application US/10301448
; Publication No. US20040095964A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,448
; CURRENT FILING DATE: 2003-02-21
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55

; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 25
; LENGTH: 225
; TYPE: Prt
; ORGANISM: Rat
US-10-301-448-25

Query Match 100.0%; Score 86; DB 15; Length 225;
Best Local Similarity 100.0%; Pred. No. 5e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 115 NDWEDRYRENMYR 128

RESULT 12
US-10-205-194-121
; Sequence 121, Application US/10205194
; Publication No. US20030134301A1
; GENERAL INFORMATION:
; APPLICANT: Warner-Lambert Company
; APPLICANT: Lee, Kevin
; APPLICANT: Dixon, Alistair
; APPLICANT: Brookspank, Robert
; APPLICANT: Finnock, Robert
; TITLE OF INVENTION: Identification and Use of Molecules Implicated in Pain
; FILE REFERENCE: WL-A-018201
; CURRENT APPLICATION NUMBER: US/10/205,194
; CURRENT FILING DATE: 5200-07-24
; PRIOR APPLICATION NUMBER: GB 0118354.0
; PRIOR FILING DATE: 2001-07-27
; NUMBER OF SEQ ID NOS: 177
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 121
; LENGTH: 226
; TYPE: Prt
; ORGANISM: Rattus norvegicus
; FEATURE:
; OTHER INFORMATION: Prp
US-10-205-194-121

Query Match 100.0%; Score 86; DB 14; Length 226;
Best Local Similarity 100.0%; Pred. No. 5e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 115 NDWEDRYRENMYR 128

RESULT 13
US-09-823-494-19
; Sequence 19, Application US/09823494
; Publication No. US20010041790A1
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 19
; LENGTH: 254
; TYPE: Prt
; ORGANISM: Mus musculus

US-09-823-494-19

Query Match 100.0%; Score 86; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 5.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | |
Db 142 NDWEDRYRENMYR 155

RESULT 14

US-09-823-494-28
; Sequence 28, Application US/09823494
; Publication No. US20010041790A1
; GENERAL INFORMATION:
; APPLICANT: Chesebro, Bruce W
; APPLICANT: Caughey, Byron W
; APPLICANT: Chabry, Joelle
; APPLICANT: Priola, Susette
; TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
; TITLE OF INVENTION: Protein
; FILE REFERENCE: 50121
; CURRENT APPLICATION NUMBER: US/09/823,494
; CURRENT FILING DATE: 2001-03-30
; PRIOR APPLICATION NUMBER: 09/128,450
; PRIOR FILING DATE: 1998-08-03
; NUMBER OF SEQ ID NOS: 29
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 28
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Mus musculus
US-09-823-494-28

Query Match 100.0%; Score 86; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 5.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | |
Db 142 NDWEDRYRENMYR 155

RESULT 15

US-09-943-906-1
; Sequence 1, Application US/09943906
; Patent No. US20020150571A1
; GENERAL INFORMATION:
; APPLICANT: Prusiner, Stanley B.
; APPLICANT: Williamson, R. Anthony
; APPLICANT: Burton, Dennis R.
; TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
; NUMBER OF SEQUENCES: 86
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 2200 Sand Hill Road
; CITY: Menlo Park
; STATE: CA
; COUNTRY: U.S.A.
; ZIP: 94025
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSeq Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/943,906
; FILING DATE: 30-Aug-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 09/550,374
; FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:
NAME: Bozicevic, Karl
REGISTRATION NUMBER: 28,807
REFERENCE/DOCKET NUMBER: 06510/059001
TELECOMMUNICATION INFORMATION:
TELEPHONE: 415-854-5277
TELEFAX: 415-854-0875
TELEX: <Unknown>

INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 254 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: peptide
SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-943-906-1

Query Match 100.0%; Score 86; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 5.6e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | |
Db 142 NDWEDRYRENMYR 155

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Job time : 34.4167 secs

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OM protein - protein search, using sw model

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(without alignments)
127.234 Million cell updates/sec

Title: US-09-603-832-5

Perfect score: 86

Sequence: 1 NDWEDRYRENNYR 14

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Minimum DB seq length: 0

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Maximum Match 100%
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- 2: /cgn2_6/ptodata/1/paa/US06 COMB.pap.*
- 3: /cgn2_6/ptodata/1/paa/US07 COMB.pap.*
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- 5: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 6: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 7: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 8: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 9: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 10: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 11: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
- 12: /cgn2_6/ptodata/1/paa/US08 COMB.pap.*
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- 14: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
- 15: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
- 16: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
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- 32: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
- 33: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
- 34: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
- 35: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*
- 36: /cgn2_6/ptodata/1/paa/US09 COMB.pap.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Match	Length	DB ID	Description
1	86	100.0	14	US-09-603-832-5	Sequence 5, Appli
2	86	100.0	15	US-10-346-190-160	Sequence 160, App
3	86	100.0	15	US-10-346-190A-160	Sequence 160, App
4	86	100.0	16	US-10-050-902A-365	Sequence 365, App
5	86	100.0	16	US-10-346-190-164	Sequence 164, App
6	86	100.0	16	US-10-346-190A-164	Sequence 164, App
7	86	100.0	16	US-10-617-876-18	Sequence 18, Appli
8	86	100.0	21	PCT-US03-16448-7	Sequence 7, Appli
9	86	100.0	21	PCT-US03-31057-7	Sequence 7, Appli
10	86	100.0	26	US-10-050-902A-364	Sequence 364, App
11	86	100.0	26	US-10-346-190-163	Sequence 163, App
12	86	100.0	26	US-10-346-190A-163	Sequence 163, App
13	86	100.0	26	US-10-617-876-17	Sequence 17, Appl
14	86	100.0	33	US-09-913-345-24	Sequence 24, Appl
15	86	100.0	45	US-09-603-832-2	Sequence 2, Appli
16	86	100.0	103	US-09-791-537-19613	Sequence 19613, A
17	86	100.0	124	US-10-050-902-324	Sequence 324, App
18	86	100.0	124	US-10-050-902A-324	Sequence 324, App
19	86	100.0	124	US-10-050-902A-324	Sequence 324, App
20	86	100.0	124	US-10-346-190-93	Sequence 93, Appl
21	86	100.0	124	US-10-346-190A-93	Sequence 93, Appl
22	86	100.0	164	PCT-US03-16448-252	Sequence 12, Appl
23	86	100.0	200	PCT-US03-31057-196	Sequence 196, App
24	86	100.0	200	PCT-US03-16448-251	Sequence 251, App
25	86	100.0	201	PCT-US03-31057-195	Sequence 195, App
26	86	100.0	201	PCT-US03-16448-250	Sequence 250, App
27	86	100.0	202	PCT-US03-31057-194	Sequence 194, App
28	86	100.0	203	PCT-US03-16448-249	Sequence 249, App
29	86	100.0	203	PCT-US03-31057-193	Sequence 193, App
30	86	100.0	204	PCT-US03-16448-248	Sequence 248, App
31	86	100.0	204	PCT-US03-31057-192	Sequence 192, App
32	86	100.0	205	PCT-US03-16448-247	Sequence 247, App
33	86	100.0	205	PCT-US03-31057-191	Sequence 191, App
34	86	100.0	208	PCT-US03-16448-57	Sequence 57, Appl
35	86	100.0	208	PCT-US03-31057-57	Sequence 57, Appl
36	86	100.0	208	US-09-831-558-1	Sequence 1, Appli
37	86	100.0	208	US-09-831-558-1	Sequence 1, Appli
38	86	100.0	209	PCT-US03-16448-56	Sequence 56, Appl
39	86	100.0	209	PCT-US03-31057-56	Sequence 56, Appl
40	86	100.0	210	PCT-US03-16448-55	Sequence 55, Appl
41	86	100.0	210	PCT-US03-31057-55	Sequence 55, Appl
42	86	100.0	211	PCT-US03-16448-54	Sequence 54, Appl
43	86	100.0	211	PCT-US03-31057-54	Sequence 54, Appl
44	86	100.0	211	US-09-591-632-19	Sequence 19, Appl
45	86	100.0	211		

ALIGNMENTS

RESULT 1
US-09-603-832-5
; Sequence 5, Application US/09603832
; GENERAL INFORMATION:
; APPLICANT: Kondejewski, Leslie H.
; APPLICANT: Irvin, Randall T.
; APPLICANT: Hodges, Robert S.
; TITLE OF INVENTION: Polypeptide Compositions Formed Using a
; FILE REFERENCE: 7900-0015.30
; CURRENT APPLICATION NUMBER: US/09/603,832
; PRIOR FILING DATE: 2000-06-26
; PRIOR APPLICATION NUMBER: US 60/141,203
; PRIOR FILING DATE: 1999-06-25
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 5
; TYPE: PRT
; ORGANISM: mouse

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US-09-603-832-5
Query Match      100.0%; Score 86; DB 20; Length 14;
Best Local Similarity 100.0%; Pred. No. 2.7e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
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Db 1 NDWEDRYRENMYR 14

RESULT 2
US-10-346-190-160
; Sequence 160, Application US/10346190
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346,190
; PRIOR FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 160
; LENGTH: 15
; TYPE: PRT
; ORGANISM: Murine prpshort
US-10-346-190A-160
Query Match      100.0%; Score 86; DB 29; Length 15;
Best Local Similarity 100.0%; Pred. No. 2.9e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
    |||||
Db 2 NDWEDRYRENMYR 15

RESULT 4
US-10-050-902A-365
; Sequence 365, Application US/10050902A
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Seibel, Peter
; APPLICANT: Piossek, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190004
; CURRENT APPLICATION NUMBER: US/10/050,902A
; PRIOR FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; NUMBER OF SEQ ID NOS: 430
; SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 365
; LENGTH: 16
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: cprpshort prion peptide
US-10-050-902A-365
Query Match      100.0%; Score 86; DB 26; Length 16;
Best Local Similarity 100.0%; Pred. No. 3.1e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
    |||||
Db 3 NDWEDRYRENMYR 16

RESULT 5
US-10-346-190-164
; Sequence 164, Application US/10346190
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
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; APPLICANT: Renner, Wolfgang A.
 ; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
 ; FILE REFERENCE: 1700.029003
 ; CURRENT APPLICATION NUMBER: US/10/346.190
 ; CURRENT FILING DATE: 2003-01-17
 ; PRIOR APPLICATION NUMBER: 60/396,590
 ; PRIOR FILING DATE: 2002-07-18
 ; PRIOR APPLICATION NUMBER: 60/393,725
 ; PRIOR FILING DATE: 2002-07-08
 ; PRIOR APPLICATION NUMBER: 60/389,898
 ; PRIOR FILING DATE: 2002-06-20
 ; PRIOR APPLICATION NUMBER: PCT/IB02/00166
 ; PRIOR FILING DATE: 2002-01-21
 ; PRIOR APPLICATION NUMBER: 10/050,902
 ; PRIOR FILING DATE: 2002-01-18
 ; NUMBER OF SEQ ID NOS: 164
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 164
 ; LENGTH: 16
 ; TYPE: PRT
 ; ORGANISM: Murine cprpshort
 US-10-346-190-164

Query Match 100.0%; Score 86; DB 29; Length 16;
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRNNMYR 14
 DB 3 NDWEDRYRNNMYR 16

RESULT 6
 US-10-346-190A-164
 ; Sequence 164, Application US/10346190A
 ; GENERAL INFORMATION:
 ; APPLICANT: Bachmann, Martin
 ; APPLICANT: Maurer, Patrick
 ; APPLICANT: Pelliccioli, Erica
 ; APPLICANT: Renner, Wolfgang A.
 ; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
 ; FILE REFERENCE: 1700.029003
 ; CURRENT APPLICATION NUMBER: US/10/346.190A
 ; CURRENT FILING DATE: 2003-01-17
 ; PRIOR APPLICATION NUMBER: 60/396,590
 ; PRIOR FILING DATE: 2002-07-18
 ; PRIOR APPLICATION NUMBER: 60/393,725
 ; PRIOR FILING DATE: 2002-07-08
 ; PRIOR APPLICATION NUMBER: 60/389,898
 ; PRIOR FILING DATE: 2002-06-20
 ; PRIOR APPLICATION NUMBER: PCT/IB02/00166
 ; PRIOR FILING DATE: 2002-01-21
 ; PRIOR APPLICATION NUMBER: 10/050,902
 ; PRIOR FILING DATE: 2002-01-18
 ; PRIOR APPLICATION NUMBER: 60/331,045
 ; PRIOR FILING DATE: 2001-11-07
 ; PRIOR APPLICATION NUMBER: 60/326,998
 ; PRIOR FILING DATE: 2001-10-05
 ; PRIOR APPLICATION NUMBER: 60/288,549
 ; PRIOR FILING DATE: 2001-05-04
 ; PRIOR APPLICATION NUMBER: 60/262,379
 ; PRIOR FILING DATE: 2001-01-19
 ; NUMBER OF SEQ ID NOS: 164
 ; SOFTWARE: PatentIn version 3.1
 ; SEQ ID NO 164
 ; LENGTH: 16
 ; TYPE: PRT
 ; ORGANISM: Murine cprpshort
 US-10-346-190A-164

Query Match 100.0%; Score 86; DB 29; Length 16;
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRNNMYR 14
 DB 3 NDWEDRYRNNMYR 16
 RESULT 7
 US-10-617-876-18
 ; Sequence 18, Application US/10617876
 ; GENERAL INFORMATION:
 ; APPLICANT: Bachmann, Martin F
 ; APPLICANT: Tissot, Alain
 ; APPLICANT: Pumpens, Paul
 ; APPLICANT: Cielens, Indulis
 ; APPLICANT: Renhofs, Regina
 ; TITLE OF INVENTION: Molecular Antigen Arrays
 ; FILE REFERENCE: 1700.0310001
 ; CURRENT APPLICATION NUMBER: US/10/617,876
 ; CURRENT FILING DATE: 2003-07-14
 ; PRIOR APPLICATION NUMBER: US 60/396,126
 ; PRIOR FILING DATE: 2002-07-17
 ; NUMBER OF SEQ ID NOS: 125
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 18
 ; LENGTH: 16
 ; TYPE: PRT
 ; ORGANISM: Artificial Sequence
 ; OTHER INFORMATION: prion peptide "cprpshort"
 US-10-617-876-18

Query Match 100.0%; Score 86; DB 32; Length 16;
 Best Local Similarity 100.0%; Pred. No. 3.1e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRNNMYR 14
 DB 3 NDWEDRYRNNMYR 16

RESULT 8
 PCT-US03-16448-7
 ; Sequence 7, Application PC/TUS0316448
 ; GENERAL INFORMATION:
 ; APPLICANT: Chiron Corporation
 ; TITLE OF INVENTION: METHODS OF GENERATING ANTIBODIES TO PRION CHIMERAS AND USES
 ; FILE REFERENCE: PPI9275.002 (2300-19275.40)
 ; CURRENT APPLICATION NUMBER: PCT/US03/16448
 ; CURRENT FILING DATE: 2003-05-22
 ; PRIOR APPLICATION NUMBER: 60/383,193
 ; PRIOR FILING DATE: 2002-05-22
 ; PRIOR APPLICATION NUMBER: 60/383,030
 ; PRIOR FILING DATE: 2002-05-22
 ; NUMBER OF SEQ ID NOS: 265
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 7
 ; LENGTH: 21
 ; TYPE: PRT
 ; ORGANISM: Artificial
 ; FEATURE:
 ; OTHER INFORMATION: Amino Acid Sequence of a Fragment of Mouse Prion Protein: Mouse PrP (135 - 155)
 PCT-US03-16448-7

Query Match 100.0%; Score 86; DB 1; Length 21;
 Best Local Similarity 100.0%; Pred. No. 4.2e-06;
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRNNMYR 14
 DB 8 NDWEDRYRNNMYR 21

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RESULT 9
PCT-US03-31057-7
; Sequence 7, Application PC/TUS0331057
; GENERAL INFORMATION:
; APPLICANT: Chiron Corporation
; TITLE OF INVENTION: PRION CHIMERAS AND USES THEREOF
; FILE REFERENCE: PP21304.001
; CURRENT APPLICATION NUMBER: PCT/US03/31057
; CURRENT FILING DATE: 2003-09-30
; PRIOR APPLICATION NUMBER: 60/502032
; PRIOR FILING DATE: 2003-09-10
; NUMBER OF SEQ ID NOS: 209
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 7
; LENGTH: 21
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: Mouse PrP (135 - 155)
PCT-US03-31057-7

Query Match 100.0%; Score 86; DB 1; Length 21;
Best Local Similarity 100.0%; Pred. No. 4.2e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
DB 8 NDWEDRYRENMYR 21

RESULT 10
US-10-050-902A-364
; Sequence 364, Application US/10050902A
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Seibel, Peter
; APPLICANT: Plossek, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190004
; CURRENT APPLICATION NUMBER: US/10/050.902A
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 430
; SOFTWARE: PatentIn Ver. 3.2
; SEQ ID NO 364
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Artificial
; FEATURE:
; OTHER INFORMATION: cprplong prion peptide
US-10-050-902A-364

Query Match 100.0%; Score 86; DB 26; Length 26;
Best Local Similarity 100.0%; Pred. No. 5.4e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
DB 13 NDWEDRYRENMYR 26

RESULT 11
US-10-346-190-163
; Sequence 163, Application US/10346190
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346.190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 163
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Murine cprplong
US-10-346-190-163

Query Match 100.0%; Score 86; DB 29; Length 26;
Best Local Similarity 100.0%; Pred. No. 5.4e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
DB 13 NDWEDRYRENMYR 26

RESULT 12
US-10-346-190A-163
; Sequence 163, Application US/10346190A
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346.190A
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: 60/331,045
; PRIOR FILING DATE: 2001-11-07
; PRIOR APPLICATION NUMBER: 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: 60/262,379
; PRIOR FILING DATE: 2001-01-19
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 163
; LENGTH: 26

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; TYPE: PRT
; ORGANISM: Murine cprplong
US-10-346-190A-163

Query Match 100.0%; Score 86; DB 29; Length 26;
Best Local Similarity 100.0%; Pred. No. 5.4e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
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Db 13 NDWEDRYRENMYR 26

RESULT 13
US-10-617-876-17
; Sequence 17, Application US/10617876
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin F
; APPLICANT: Tissot, Alain
; APPLICANT: Pumps, Paul
; APPLICANT: Cielens, Indulis
; APPLICANT: Renhofa, Regina
; TITLE OF INVENTION: Molecular Antigen Arrays
; FILE REFERENCE: 1700.0310001
; CURRENT APPLICATION NUMBER: US/10/617,876
; CURRENT FILING DATE: 2002-07-11
; PRIOR APPLICATION NUMBER: US 60/396,126
; PRIOR FILING DATE: 2002-07-17
; NUMBER OF SEQ ID NOS: 125
; SOFTWARE: Patentin version 3.2
; SEQ ID NO 17
; LENGTH: 26
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:

; OTHER INFORMATION: prion peptide "cprplong"
US-10-617-876-17

Query Match 100.0%; Score 86; DB 32; Length 26;
Best Local Similarity 100.0%; Pred. No. 5.4e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | | | | | | | |
Db 13 NDWEDRYRENMYR 26

RESULT 14
US-09-913-345-24
; Sequence 24, Application US/09913345
; GENERAL INFORMATION:
; APPLICANT: Garssen, Gerrit J.
; APPLICANT: Jacobs, Jorg G.
; APPLICANT: Langeveld, Joannes P.M.
; APPLICANT: Smits, Marinus A.
; APPLICANT: van Keulen, Lucien J.M.
; APPLICANT: Schreuder, Bram E.C.
; APPLICANT: Bossers, Alexander
; TITLE OF INVENTION: Prion Test
; FILE REFERENCE: 2183-5034US
; CURRENT APPLICATION NUMBER: US/09/913,345
; CURRENT FILING DATE: 2002-03-25
; PRIOR APPLICATION NUMBER: PCT/NL00/00079
; PRIOR FILING DATE: 2000-02-09
; PRIOR APPLICATION NUMBER: EP 99200391.3
; PRIOR FILING DATE: 1999-02-11
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 24
; LENGTH: 33
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-09-913-345-24

Query Match 100.0%; Score 86; DB 24; Length 33;
Best Local Similarity 100.0%; Pred. No. 7e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | | | | | | | |
Db 2 NDWEDRYRENMYR 15

RESULT 15
US-09-603-832-2
; Sequence 2, Application US/09603832
; GENERAL INFORMATION:
; APPLICANT: Kondejewski, Leslie H.
; APPLICANT: Irvin, Randall T.
; APPLICANT: Hodges, Robert S.
; TITLE OF INVENTION: Polypeptide Compositions Formed Using a
; FILE REFERENCE: 7900-0015.30
; CURRENT APPLICATION NUMBER: US/09/603,832
; CURRENT FILING DATE: 2000-06-26
; PRIOR APPLICATION NUMBER: US 60/141,203
; PRIOR FILING DATE: 1999-06-25
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 45
; TYPE: PRT
; ORGANISM: mouse
US-09-603-832-2

Query Match 100.0%; Score 86; DB 20; Length 45;
Best Local Similarity 100.0%; Pred. No. 9.9e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
| | | | | | | | | | | | | | | | | | | | | |
Db 20 NDWEDRYRENMYR 33

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Run on: October 26, 2004, 15:36:59 ; Search time 8.16667 seconds
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164.943 Million cell updates/sec

Title: US-09-603-832-5
Perfect score: 86
Sequence: 1 NDWEDRYRENMYR 14

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	86	100.0	226	2 A53892	prion-related prote
2	86	100.0	254	2 A23544	major prion protei
3	77	89.5	232	2 S71041	major prion protei
4	77	89.5	239	2 S53633	major prion protei
5	77	89.5	241	2 S71048	major prion protei
6	77	89.5	241	2 S71056	major prion protei
7	77	89.5	245	2 S53627	major prion protei
8	77	89.5	245	2 S71045	major prion protei
9	77	89.5	252	2 S53634	major prion protei
10	77	89.5	252	2 S53631	major prion protei
11	77	89.5	252	2 J65175	major prion protei
12	77	89.5	252	2 S53623	major prion protei
13	77	89.5	253	2 S53620	major prion protei
14	77	89.5	253	2 S53625	major prion protei
15	77	89.5	253	2 S53625	major prion protei
16	77	89.5	253	2 S53625	major prion protei
17	77	89.5	253	2 S53625	major prion protei
18	77	89.5	253	2 S71055	major prion protei
19	77	89.5	253	2 S53616	major prion protei
20	77	89.5	253	2 S53618	major prion protei
21	77	89.5	253	2 S53619	major prion protei
22	77	89.5	254	1 UUYH1H	major prion protei
23	77	89.5	254	2 B34759	major prion PrP-Sc
24	77	89.5	254	2 A34759	prion protein - go
25	77	89.5	256	2 S37149	prion protein - Ch
26	77	89.5	256	2 A54281	major prion protei
27	77	89.5	257	2 JQ1900	major prion protei
28	77	89.5	257	2 A23545	major prion PrP27-
29	77	89.5	260	2 S53629	major prion protei

ALIGNMENTS

RESULT 1

A53892
Prion-related protein - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 09-Jul-2004
C:Accession: A53892
R:Liag, Y.C.; Iokas, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.
Lab: Invest. 57, 370-374, 1987
A:Title: Cloning of rat "prion-related protein" cDNA.
A:Reference number: A53892; MUID:88037055; PMID:2889848
A:Accession: A53892
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-226 <LTA>
A:Cross-references: UNIPROT:P13852; GB:M20313; MID:g206391; PIDN:AAA1947.1; PID:g20639
C:Superfamily: major prion protein

Query Match 100.0%; Score 86; DB 2; Length 226;
Best Local Similarity 100.0%; Pred. No. 2.8e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
|||
Db 115 NDWEDRYRENMYR 128

RESULT 2

A23544
major prion protein precursor - mouse
N:Alternate names: PrP; Scrapie prion
C:Species: Mus musculus (house mouse)
C:Date: 22-Jul-1987 #sequence_revision 22-Jul-1987 #text_change 09-Jul-2004
C:Accession: A29669; A23544; S02521; A22315
R:Westaway, D.; Goodman, P.A.; Mirenda, C.A.; McKinley, M.P.; Carlson, G.A.; Prusiner, C.;
Cell 51, 651-662, 1987
A:Title: Distinct prion proteins in short and long scrapie incubation period mice.
A:Reference number: A29669; MUID:88052869; PMID:2890436
A:Accession: A29669
A:Molecule type: DNA
A:Residues: 1-254 <WES>
A:Cross-references: UNIPROT:P04925; GB:M18070; MID:g200528; PIDN:AAA39997.1; PID:g20052
A:Experimental source: strains NZW and I/LnJ
A:Note: the sequence shown is from the NZW strain; the sequence from the I/LnJ strain d
R:Locht, C.; Chesebro, B.; Race, R.; Keith, J.M.
Proc. Natl. Acad. Sci. U.S.A. 83, 6372-6376, 1986
A:Reference number: A23544; MUID:86313583; PMID:3462700
A:Accession: A23544
A:Molecule type: mRNA
A:Residues: 1-254 <LOC>
R:Hope, J.; Multhaup, G.; Reekie, L.J.D.; Kimberlin, R.H.; Beyreuther, K.
Eur. J. Biochem. 172, 271-277, 1988
A:Title: Molecular pathology of scrapie-associated fibril protein (PrP) in mouse brain

A;Reference number: S02521; MUID:88166695; PMID:2894984

A;Accession: S02521
A;Molecule type: protein
A;Residues: 1-254 <HOP>
R;Chesebro, B.; Race, R.; Wehrly, K.; Nishio, J.; Bloom, M.; Lechner, D.; Bergstrom, S.;
Nature 315, 331-333, 1985
A;Title: Identification of scrapie prion protein-specific mRNA in scrapie-infected and u
A;Reference number: A22315; MUID:85213844; PMID:3923361
A;Accession: A22315
A;Molecule type: mRNA
A;Residues: 87-132, 'V', 134-164 <CHE>
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; phosphatidyl
F;1-22/Domain: signal sequence #status predicted <SIG>
F;23-231/Product: major prion protein #status predicted <HAT>
F;238-234/Domain: carboxyl-terminal propeptide #status predicted <CTP>
F;178-213/Disulfide bonds: #status predicted
F;180,196/Binding site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form
F;231/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form

Query Match 100.0%; Score 86; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.2e-06;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
DB 142 NDWEDRYRENMYR 155

RESULT 3

S71041
major prion protein - black-handed spider monkey (fragment)
C;Species: Ateles geoffroyi (black-handed spider monkey)
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S71041; S53630
R;Schatzl, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71041
A;Molecule type: DNA
A;Residues: 1-232 <SCH>
A;Cross-references: UNIPROT:P40246; EMBL:U08309; NID:G474376; PIDN:AAC50097.1; PID:G4743
R;Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53630
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-194, 'R', 196-231 <SCW>
A;Cross-references: EMBL:U08309
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 232;
Best Local Similarity 92.9%; Pred. No. 7.6e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
DB 127 NDWEDRYRENMYR 140

RESULT 4

S53633
major prion protein - douroucouli (fragment)
C;Species: Aotus trivirgatus (douroucouli, night monkey, owl monkey)
C;Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S53633; S71042
R;Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates
A;Reference number: S53614; MUID:95139066; PMID:7837269

A;Accession: S53633
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-239 <SCH>
A;Cross-references: UNIPROT:P40245; EMBL:U08293
R;Schatz1, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71042
A;Molecule type: DNA
A;Residues: 1-202, 'E', 204-239 <SCW>
A;Cross-references: EMBL:U08293; NID:G474344; PIDN:AAC50082.1; PID:G474345
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 239;
Best Local Similarity 92.9%; Pred. No. 7.8e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
DB 135 NDWEDRYRENMYR 148

RESULT 5

S71048
major prion protein - Callicebus moloch (fragment)
C;Species: Callicebus moloch
C;Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C;Accession: S71048; S53632
R;Schatz1, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71048
A;Molecule type: DNA
A;Residues: 1-241 <SCH>
A;Cross-references: UNIPROT:P40248; EMBL:U08312; NID:G475585; PIDN:AAC50100.1; PID:G4755
R;Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A;Title: Prion protein gene variation among primates
A;Reference number: S53614; MUID:95139066; PMID:7837269
A;Accession: S53632
A;Status: nucleic acid sequence not shown
A;Molecule type: DNA
A;Residues: 1-203, 'R', 205-240 <SCW>
A;Cross-references: EMBL:U08312
C;Superfamily: major prion protein
C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 241;
Best Local Similarity 92.9%; Pred. No. 7.9e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
DB 136 NDWEDRYRENMYR 149

RESULT 6

S71056
major prion protein - mandrill (fragment)
C;Species: Papio sphinx, Mandrillus sphinx (mandrill)
C;Date: 27-Oct-1996 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
C;Accession: S71056; S53621
R;Schatz1, H.M.
submitted to the EMBL Data Library, April 1994
A;Reference number: S71041
A;Accession: S71056
A;Molecule type: DNA
A;Residues: 1-241 <SCH>
A;Cross-references: UNIPROT:P40255; EMBL:U08303; NID:G474364; PIDN:AAC50091.1; PID:G4743
R;Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995

A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53621
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-203,'R',205-240 <SCW>
 A:Cross-references: EMBL:U08303
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 241;
 Best Local Similarity 92.9%; Pred. No. 7.9e-05;
 Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
 ||:|||||
 Db 136 NDYEDRYRENMYR 149

RESULT 7

S53627
 major prion protein - green monkey
 C:Species: Cercopithecus aethiops (green monkey, grivet)
 C:Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S53627; S71043
 R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53627
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-245 <SCH>
 A:Cross-references: UNIPROT:P40250; EMBL:U08291
 R:Schatzl, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71043
 A:Molecule type: DNA
 A:Residues: 1-10,'V',12-202,'E',204-245 <SCW>
 A:Cross-references: EMBL:U08291; NID:G474340; PIDN:AAC50080.1; PID:G474341
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 245;
 Best Local Similarity 92.9%; Pred. No. 8e-05;
 Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
 ||:|||||
 Db 135 NDYEDRYRENMYR 148

RESULT 8

S71045
 major prion protein - Cercopithecus diana
 C:Species: Cercopithecus diana
 C:Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S71045; S53628
 R:Schaezel, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71045
 A:Molecule type: DNA
 A:Residues: 1-245 <SCH>
 A:Cross-references: UNIPROT:P40250; EMBL:U08292; NID:G474342; PIDN:AAC50081.1; PID:G474343
 R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53628
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA

A:Residues: 8-10,'L',12-202,'R',204-239 <SCW>
 A:Cross-references: EMBL:U08292
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 245;
 Best Local Similarity 92.9%; Pred. No. 8e-05;
 Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
 ||:|||||
 Db 135 NDYEDRYRENMYR 148

RESULT 9

S53634
 major prion protein - common marmoset
 C:Species: Callithrix jacchus (common marmoset)
 C:Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S53634; S71047
 R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53634
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-252 <SCH>
 A:Cross-references: UNIPROT:P40247; EMBL:U08304
 R:Schatzl, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71047
 A:Molecule type: DNA
 A:Residues: 1-209,'E',211-252 <SCW>
 A:Cross-references: EMBL:U08304; NID:G474366; PIDN:AAC50092.1; PID:G474367
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 252;
 Best Local Similarity 92.9%; Pred. No. 8.3e-05;
 Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 1 NDWEDRYRENMYR 14
 ||:|||||
 Db 142 NDYEDRYRENMYR 155

RESULT 10

S53631
 major prion protein - brown capuchin
 C:Species: Cebus apella (brown capuchin, black-capped capuchin)
 C:Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S53631; S71044
 R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53631
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-252 <SCH>
 A:Cross-references: UNIPROT:P40249; EMBL:U08295
 R:Schatzl, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71044
 A:Molecule type: DNA
 A:Residues: 1-209,'E',211-252 <SCW>
 A:Cross-references: EMBL:U08295; NID:G474348; PIDN:AAC50084.1; PID:G474349
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

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Query Match      89.5%; Score 77; DB 2; Length 252;
Best Local Similarity 92.9%; Pred. No. 8.3e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 NDWEDRYRENMYR 14
Db      142 NDYEDRYRENMYR 155

RESULT 11
I61848
major prion protein precursor - common squirrel monkey
C:Species: Saimiri sciureus (common squirrel monkey)
C>Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004
C:Accession: J61848
R:Cervenakova L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Rubenstein, R.;
Pro. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
A>Title: Infectious amyloid precursor gene sequences in primates used for experimental
A:Reference number: 136907; MUID:95083661; PMID:7991600
A:Accession: J61848
A>Status: preliminary; translated from GB/EMBL/DBJ
A:Molecule type: DNA
A:Residues: 1-252 <RES>
A:Cross-references: UNIPROT:P40258; EMBL:U15165; NID:G595852; PIDN:AAA68636.1; PID:G5958
C:Superfamily: major prion protein

Query Match      89.5%; Score 77; DB 2; Length 252;
Best Local Similarity 92.9%; Pred. No. 8.3e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 NDWEDRYRENMYR 14
Db      142 NDYEDRYRENMYR 155

RESULT 12
JC6175
prion protein - rabbit
C:Species: Oryctolagus cuniculus (domestic rabbit)
C>Date: 11-Apr-1997 #sequence_revision 09-May-1997 #text_change 09-Jul-2004
C:Accession: JC6175
R:Loftus, B.; Rogers, M.
Gene 184, 215-219, 1997
A>Title: Characterization of a prion protein (PrP) gene from rabbit; a species with appa
A:Reference number: JC6175; MUID:97183665; PMID:9031631
A:Accession: JC6175
A:Molecule type: DNA
A:Residues: 1-252 <LOF>
A:Cross-references: UNIPROT:Q95211; GB:U28334; NID:G1490412; PIDN:AAC48637.1; PID:G14904
C:Comment: This protein is a cellular protein, it is involved in the neurodegenerative p
C:Genetics:
A:Gene: PrP
C:Superfamily: major prion protein
C:Keywords: disulfide bond; prion

Query Match      89.5%; Score 77; DB 2; Length 252;
Best Local Similarity 92.9%; Pred. No. 8.3e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 NDWEDRYRENMYR 14
Db      142 NDYEDRYRENMYR 155

RESULT 13
S53624
major prion protein - stump-tailed macaque
C:Species: Macaca arctoides (stump-tailed macaque)
C>Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 11-Aug-2003
C:Accession: S53624; S71051
R:Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A>Title: Prion protein gene variation among primates.

A:Reference number: S53614; MUID:95139066; PMID:7837269
A:Accession: S53620
A:Molecule type: DNA
A:Residues: 1-253 <SCH>

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A:Reference number: S53614; MUID:95139066; PMID:7837269
A:Accession: S53624
A>Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-253 <SCH>
A:Cross-references: EMBL:U08311; NID:G475583; PIDN:AAC50099.1; PID:G475584
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match      89.5%; Score 77; DB 2; Length 253;
Best Local Similarity 92.9%; Pred. No. 8.3e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 NDWEDRYRENMYR 14
Db      143 NDYEDRYRENMYR 156

RESULT 14
S53623
major prion protein - crab-eating macaque
C:Species: Macaca fascicularis (crab-eating macaque)
C>Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 11-Aug-2003
C:Accession: S53623; S71052
R:Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A>Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066; PMID:7837269
A:Accession: S53623
A>Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-253 <SCH>
A:Cross-references: EMBL:U08298; NID:G474354; PIDN:AAC50087.1; PID:G474355
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match      89.5%; Score 77; DB 2; Length 253;
Best Local Similarity 92.9%; Pred. No. 8.3e-05;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY      1 NDWEDRYRENMYR 14
Db      143 NDYEDRYRENMYR 156

RESULT 15
S53620
major prion protein - hamadryas baboon
C:Species: Papio hamadryas (hamadryas baboon)
C>Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 11-Aug-2003
C:Accession: S53620; S71058
R:Schaetzl, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A>Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066; PMID:7837269
A:Accession: S53620
A:Molecule type: DNA
A:Residues: 1-253 <SCH>

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A;Cross-references: EMBL:U08294
 R;Schatzl, H.M.
 Submitted to the EMBL Data Library, April 1994
 A;Reference number: S71041
 A;Accession: S71058
 A;Molecule type: DNA
 A;Residues: 1-210, 'E', 212-253 <SCW>
 A;Cross-references: EMBL:U08294; NID:G474346; PIDN:AAC50083.1; PID:G474347
 C;Superfamily: major prion protein
 C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 89.5%; Score 77; DB 2; Length 253;
 Best Local Similarity 92.9%; Pred. No. 8.3e-05;
 Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
 ||:|||||
 Db 143 NDYEDRYRENMYR 156

Search completed: October 26, 2004, 15:44:43
 Job time : 9.16667 secs

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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:34:24 ; Search time 33.5417 Seconds
(without alignments)
240.156 Million cell updates/sec

Title: US-09-603-832-5

Perfect score: 86

Sequence: 1 NDWEDRYRENMYR 14

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_02.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	86	100.0	253	Q9Z0T5	Q9Z0T5 meriones un
2	86	100.0	254	P10 MOUSE	P04325 mus musculus
3	86	100.0	254	P10 RAT	P13852 ractus norv
4	86	100.0	254	P10 SIGHI	Q9Z0T3 sigmodon hi
5	86	100.0	254	Q9Z0T4	Q9Z0T4 sigmodon fu
6	86	100.0	254	Q9QYT9	Q9QYT9 mus musculus
7	86	100.0	254	Q8VHV6	Q8VHV6 apodemus sy
8	86	100.0	254	AAD19993	Aad19993 rattus no
9	77	89.5	67	Q6JUY8	Q6JUY8 ovis aries
10	77	89.5	67	Q6JUY9	Q6JUY9 ovis aries
11	77	89.5	67	AAQ81751	AAQ81751 ovis arie
12	77	89.5	67	AAQ81752	AAQ81752 ovis arie
13	77	89.5	124	Q9TU20	Q9TU20 varecia var
14	77	89.5	134	Q6PR45	Q6PR45 ovis aries
15	77	89.5	134	AAT09129	AAT09129 ovis arie
16	77	89.5	145	Q7BEH4	Q7BEH4 mesocricetu
17	77	89.5	185	Q97694	Q97694 cervus nipp
18	77	89.5	195	Q97693	Q97693 canis lupus
19	77	89.5	195	Q97903	Q97903 addax nasom
20	77	89.5	197	Q6RV12	Q6RV12 ovis aries
21	77	89.5	197	Q6RV14	Q6RV14 ovis aries
22	77	89.5	197	Q6RV15	Q6RV15 ovis aries
23	77	89.5	197	Q6RV16	Q6RV16 ovis aries
24	77	89.5	197	AAR37329	AAR37329 ovis arie
25	77	89.5	197	AAR37330	AAR37330 ovis arie
26	77	89.5	197	AAR37331	AAR37331 ovis arie
27	77	89.5	197	AAR37333	AAR37333 ovis arie
28	77	89.5	202	Q97696	Q97696 lama glama
29	77	89.5	202	Q97908	Q97908 capra nubia
30	77	89.5	204	Q97629	Q97629 odocoileus
31	77	89.5	204	Q9TSI7	Q9TSI7 odocoileus

32	77	89.5	204	2	Q9TSI8	Q9TSI8 odocoileus
33	77	89.5	209	2	Q9TV02	Q9TV02 camelus dro
34	77	89.5	211	2	Q77787	Q77787 antilocapra
35	77	89.5	212	2	Q97698	Q97698 cervus elap
36	77	89.5	213	2	Q9TV04	Q9TV04 canis famil
37	77	89.5	214	2	Q9TV03	Q9TV03 canis famil
38	77	89.5	215	2	Q811W3	Q811W3 spalax leuc
39	77	89.5	220	2	O02825	O02825 odocoileus
40	77	89.5	220	2	Q7J772	Q7J772 odocoileus
41	77	89.5	221	2	Q866V1	Q866V1 procavia ca
42	77	89.5	222	2	Q97913	Q97913 equus burch
43	77	89.5	222	2	Q7YRX1	Q7YRX1 procyon lot
44	77	89.5	223	2	Q97910	Q97910 hippotragus
45	77	89.5	223	2	Q866W3	Q866W3 sorex ciner

ALIGNMENTS

RESULT 1

Q9Z0T5 PRELIMINARY; PRT; 253 AA.
AC Q9Z0T5; 1999 (TREMELrel. 10, Created)
DT 01-MAY-1999 (TREMELrel. 10, Last sequence update)
DT 01-JUN-2003 (TREMELrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=Prp;
OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Gerbillinae;
OC Meriones.
OX NCBI_TaxID=10047;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=99303687; PubMed=10373359;
RA Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL: AF117314; AAD19985.1; -.
DR InterPro: IPR000817; Prion.
DR Pfam: PF00377; Prion; 1.
DR Pfam: PF03991; Prion octapep; 6.
DR PRINTS: PR00341; PRION.
DR SMART: SM00157; PRP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON_TER
SQ SEQUENCE 253 AA; 27747 MW; B4D16867A97307F CRC64;

Query Match 100.0%; Score 86; DB 2; Length 253;

Best local similarity 100.0%; Pred. No. 2.3e-05;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14

|||||

142 NDWEDRYRENMYR 155

RESULT 2

ID PRIO MOUSE STANDARD; PRT; 254 AA.
AC P04925;
DT 13-AUG-1987 (Rel. 05, Created)
DT 01-JAN-1990 (Rel. 13, Last sequence update)
DT 01-OCT-2004 (Rel. 45, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
GN Name=Prp; Synonyms=Prn-p;

OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OC NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=NZW, and I/LNI;
 RX MEDLINE=8052869; PubMed=2890436;
 RA Westaway D., Goodman P.A., Mirenda C.A., McKinley M.P., Carlson G.A.,
 RA Prusiner S.B.;
 RT "Distinct prion proteins in short and long scrapie incubation period
 RL mice.";
 RL Cell 51:651-662(1987).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=86313583; PubMed=3462700;
 RA Lochte C., Chesebro B., Race R., Keith J.M.;
 RT "Molecular cloning and complete sequence of prion protein cDNA from
 RT mouse brain infected with the scrapie agent";
 RL Proc. Natl. Acad. Sci. U.S.A. 83:6372-6376(1986).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=8616695; PubMed=2894984;
 RA Hope J., Multhaup G., Reekie L.J.D., Kimberlin R.H., Beyreuther K.;
 RT "Molecular pathology of scrapie-associated fibril protein (PrP) in
 RT mouse brain affected by the ME7 strain of scrapie.";
 RL Eur. J. Biochem. 172:271-277(1988).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=NZW; TISSUE=Brain;
 RX MEDLINE=99018115; PubMed=979790;
 RA Lee I.Y., Westaway D., Smit A.F.A., Wang K., Seto J., Chen L.,
 RA Acharya C., Ankener M., Baekin D., Cooper C., Yao H., Prusiner S.B.,
 RA Hood L.E.;
 RT "Complete genomic sequence and analysis of the prion protein gene
 RT region from three mammalian species";
 RL Genome Res. 8:1022-1037(1998).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=22398257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Strausberg R.L., Gough E.A., Grouse L.H., Derge J.G.,
 RA Klautner R.D., Collins F.S., Wagner L., Shenkin C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S., Wang J., Hsieh F.,
 RA Diatchenko L., Matovina K., Farmer A., Rubin G.M., Hong L.,
 RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Udgin T.B., Toshiyuki S., Carninci P., Frange C.,
 RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullany S.J.,
 RA Bosak S.A., McSwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smallos D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
 RT "Generation and initial analysis of more than 15,000 full-length human
 RT and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
 RN [6]
 RP SEQUENCE OF 87-164 FROM N.A.
 RX MEDLINE=85213844; PubMed=3923361;
 RA Chesebro B., Race R., Wehrly K., Nishio J., Bloom M., Lechner D.,
 RA Bergstrom S., Robbins K., Mayer L., Keith J.M., Garon C., Haase A.;
 RT "Identification of scrapie prion protein-specific mRNA in scrapie-
 RT infected and uninfected brain";
 RL Nature 315:331-333(1985).
 RN [7]
 RP STRUCTURE BY NMR OF 120-230.
 RX MEDLINE=96317593; PubMed=8700211;
 RA Riek R., Hornemann S., Wider G., Billeter M., Glockshuber R.,
 RA Wuthrich K.;
 RT "NMR structure of the mouse prion protein domain PrP(121-321).";
 RL Nature 382:180-182(1996).
 RN [8]
 RP STRUCTURE BY NMR OF 23-231.
 RX MEDLINE=97424376; PubMed=9280298;
 RA Riek R., Hornemann S., Wider G., Glockshuber R., Wuthrich K.;
 RT "NMR characterization of the full-length recombinant murine prion
 RL protein, mPrP(23-231).";
 RL FEBS Lett. 413:282-286(1997).
 RN [9]
 RP HYDROXYLATION OF PRO-44.
 RX MEDLINE=20490364; PubMed=11032800;
 RA Gill A.C., Ritchie M.A., Hunt L.G., Steane S.E., Davies K.G.,
 RA Bocking S.P., Rhie A.G.O., Bennett A.D., Hope J.;
 RT "Post-translational hydroxylation at the N-terminus of the prion
 RT protein reveals presence of PPII structure in vivo";
 RL EMBO J. 19:5324-5331(2000).
 CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "rods".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: Found in high quantity in the brain of humans and animals
 CC infected with degenerative neurological diseases such as kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
 CC
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 CC
 CC EMBL: M18070; AAA39997.1; -
 CC EMBL: M18071; AAA39998.1; -
 CC EMBL: M13685; AAA39996.1; -
 CC EMBL: U29186; AAC02804.1; -
 CC EMBL: BC006703; AAH06703.1; -
 CC EMBL: M30384; AAA39999.1; -
 CC DDB: A28669; A23544; -
 CC PDB: 1AG2; NMR; g=123-225.
 CC MGD: MG1:97763; Prnp.
 CC GO: GO:0005783; C:Endoplasmic reticulum; IDA.
 CC GO: GO:0005794; C:Golgi apparatus; IDA.
 CC GO: GO:0045121; C:Lipid raft; IDA.
 CC GO: GO:0005507; F:copper ion binding; IDA.
 CC GO: GO:0006979; P:response to oxidative stress; IDA.
 CC InterPro: IPR000817; Prion.
 CC Pfam: PF00377; Prion; 1.
 CC PRINTS: PR03991; Prion; octapep; 6.
 CC PRINTS: PR00341; PRION.
 CC PROSITE: PS00291; PRION_1; 1.
 CC PROSITE: PS00706; PRION_2; 1.
 CC 3D-structure: Glycoprotein; GPI-anchor; Hydroxylation; Lipoprotein;
 KW Polymorphism; Prion; Repeat; Signal.
 FT SIGNAL 1 22
 FT CHAIN 23 230 Major prion protein.
 FT PROPEP 231 254 Removed in mature form (By similarity).
 FT MOD_RES 44 44 Hydroxyproline.
 FT LIPID 230 230 GPI-anchor amidated serine (By
 FT similarity).
 FT CARBOHYD 180 180 N-linked (GlcNAc...) (Probable).
 FT CARBOHYD 196 196 N-linked (GlcNAc...) (Probable).
 FT DISULFID 178 213 5 X 8 AA tandem repeats of P-H-G-G-W-G-
 FT DOMAIN 51 90 Q.
 FT REPEAT 51 58 1.
 FT REPEAT 59 66 2.
 FT REPEAT 67 74 3.

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FT REPEAT 75 82
FT REPEAT 83 90
FT VARIANT 108 108
FT VARIANT 189 189
FT CONFLICT 133 133
FT TURN 124 126
FT STRAND 128 129
FT HELIX 143 152
FT TURN 153 155
FT STRAND 161 162
FT HELIX 171 191
FT TURN 192 194
FT HELIX 199 221
FT TURN 222 224
SQ SEQUENCE 254 AA; 27977 MW; D5331E6321826CC0 CRC64;

Query Match 100.0%; Score 86; DB 1; Length 254;
Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENNMYR 14
DB 142 NDWEDRYRENNMYR 155

RESULT 3
PRIO_RAT
ID PRIO_RAT STANDARD; PRT; 254 AA.
AC P13852;
DT 01-JAN-1990 (Rel. 13, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP).
GN Name=Prnp; Synonyms=Prn;
OS Rattus norvegicus (Rat).
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN=Wistar; TISSUE=Liver;
RX MEDLINE=97033369; PubMed=8879116;
RA Saeki K., Matsumoto Y., Hirota Y., Matsumoto Y., Onodera T.;
RA Gomi H., Ikeda T., Kunieda T., Itohara S., Prusiner S.B.,
RA Yamawuchi K.;
RT "Prion protein (PrP) is not involved in the pathogenesis of spongiform
enkephalopathy in zitter rats";
RL Neurosci. Lett. 166:171-174(1994).
RN [2]
RP SEQUENCE FROM N.A.
RC STRAIN=Wistar; TISSUE=Liver;
RX MEDLINE=97033369; PubMed=8879116;
RA Saeki K., Matsumoto Y., Hirota Y., Matsumoto Y., Onodera T.;
RT "Three-exon structure of the gene encoding the rat prion protein and
its expression in tissues.";
RL Virus Genes 12:15-20(1996).
RN [3]
RP SEQUENCE OF 29-254 FROM N.A.
RX MEDLINE=88037055; PubMed=2889848;
RA Liao Y.-C., Tokes Z., Lim E., Lackey A., Woo C.H., Button J.D.,
RA Clawson G.A.;
RT "Cloning of rat 'prion-related protein' cDNA.";
RL Lab. Invest. 57:370-374(1987).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
"rods".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: Found in high quantity in the brain of humans and animals
infected with degenerative neurological diseases such as kuru,
Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
(GSS), scrapie, bovine spongiform encephalopathy (BSE),
transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.

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EMBL; S69654; AAB30728.2; -
EMBL; D50093; BAA08790.1; -
EMBL; M20313; AAM41947.1; -
EMBL; A53892; A53892.
HSP; P04925; IAG2.
KGD; 3410; Prnp000817; Prion.
InterPro: IPR000817; Prion.
Pfam: PF00377; Prion; 1.
PRINTS; PR00341; PRION.
PROSITE; PS00291; PRION_1; 1.
PROSITE; PS00706; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
KW Glycoprotein; GPI-anchor; Potential.
FT CHAIN 29 231
FT PROPEP 232 254
FT LIPID 231 231
FT CARBOHYD 181 181
FT CARBOHYD 197 197
FT DISULFID 179 214
FT DOMAIN 51 91
FT REPEAT 51 59
FT REPEAT 60 67
FT REPEAT 68 75
FT REPEAT 76 83
FT REPEAT 84 91
FT SEQUENCE 254 AA; 27804 MW; 28F424D13BEFA2C6 CRC64;

Query Match 100.0%; Score 86; DB 1; Length 254;
Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENNMYR 14
DB 143 NDWEDRYRENNMYR 156

RESULT 4
PRIO_SIGHI
ID PRIO_SIGHI STANDARD; PRT; 254 AA.
AC Q920F3;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP).
GN Name=Prnp; Synonyms=Prp;
OS Sigmodon hispidus (Hispid cotton rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
OC Sigmodon.
OX NCBI_TaxID=42415;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=Brain;
RX MEDLINE=99303687; PubMed=10373359;
RA Wopfinger F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999)
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
host genome and is expressed both in normal and infected cells.

```

CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "folds".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
 CC animals infected with the degenerative neurological diseases kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
 CC -----
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 CC -----
 CC EMBL; AF117325; AAD19996.1; -.
 CC HSSP; P04925; IAG2.
 CC InterPro; IPR000817; Prion.
 CC Pfam; PF00377; Prion; 1.
 CC Pfam; PF03991; Prion octapep; 6.
 CC PRINTS; PR00341; PRION.
 CC PROSITE; PS00291; PRION_1; 1.
 CC PROSITE; PS00706; PRION_2; 1.
 CC KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
 CC Signal.
 CC FT SIGNAL. 1 22 By similarity.
 CC FT CHAIN 23 231 Major prion protein.
 CC FT PROPEP 232 254 Removed in mature form (By similarity).
 CC FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-W-G-
 CC FT REPEAT 51 59 1.
 CC FT REPEAT 60 67 2.
 CC FT REPEAT 68 75 3.
 CC FT REPEAT 76 83 4.
 CC FT REPEAT 84 91 5.
 CC FT DISULFID 179 214 By similarity.
 CC FT LIPID 231 231 GPI-anchor amidated serine (By
 CC similarity).
 CC FT CARBOHYD 181 181 N-linked (GlcNAc...) (Potential).
 CC FT CARBOHYD 197 197 N-linked (GlcNAc...) (Potential).
 CC FT SEQUENCE 254 AA; 27874 MW; 50C464D516E572DF CRC64;
 CC
 CC Query Match 100.0%; Score 86; DB 1; Length 254;
 CC Best Local Similarity 100.0%; Pred. No. 2.3e-05;
 CC Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 CC
 CC QY 1 NDWEDRYRNMVYR 14
 CC Db 143 NDWEDRYRNMVYR 156
 CC
 CC RESULT 5
 CC Q920T4 PRELIMINARY; PRT; 254 AA.
 CC ID Q920T4
 CC AC Q920T4; (Tremblrel. 10, Created)
 CC DT 01-MAY-1999 (Tremblrel. 10, Last sequence update)
 CC DT 01-MAY-1999 (Tremblrel. 10, Last sequence update)
 CC DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)
 CC DE Prion protein (Fragment).
 CC GN Name=PrP;
 CC OS Sigmodon fulviventer (tawny-bellied cotton rat).
 CC OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 CC OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
 CC OC Sigmodon.
 CC OX NCBI_TaxID=89246;
 CC (1)
 CC RP SEQUENCE FROM N.A.
 CC RX MEDLINE=99303687; PubMed=10373359;
 CC TISSUE=Brain;
 CC MEDLINE=99303687; PubMed=10373359;
 CC Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,

RA Schwarz T.F., Werner T., Scharl H.M.;
 RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
 RT of flexible regions of the prion protein.";
 RL J. Mol. Biol. 289:1163-1178(1999).
 CC -!- SIMILARITY: Belongs to the prion family.
 CC EMBL; AF17324; AAD19995.1; -.
 CC InterPro; IPR000817; Prion.
 CC Pfam; PF00377; Prion; 1.
 CC Pfam; PF03991; Prion octapep; 6.
 CC PRINTS; PR00341; PRION.
 CC SMART; SM00157; PrP; 1.
 CC PROSITE; PS00291; PRION_1; 1.
 CC PROSITE; PS00706; PRION_2; 1.
 CC KW Prion.
 CC FT NON_TER 254 254
 CC SQ SEQUENCE 254 AA; 27904 MW; 9EE7E1D106B43B97 CRC64;
 CC
 CC Query Match 100.0%; Score 86; DB 2; Length 254;
 CC Best Local Similarity 100.0%; Pred. No. 2.3e-05;
 CC Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 CC
 CC QY 1 NDWEDRYRNMVYR 14
 CC Db 143 NDWEDRYRNMVYR 156
 CC
 CC RESULT 6
 CC Q9QYT9 PRELIMINARY; PRT; 254 AA.
 CC ID Q9QYT9
 CC AC Q9QYT9
 CC DT 01-MAY-2000 (Tremblrel. 13, Created)
 CC DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)
 CC DT 01-JUN-2003 (Tremblrel. 24, Last annotation update)
 CC DE Long incubation prion protein.
 CC GN Name=Prnpb;
 CC OS Mus musculus (Mouse).
 CC OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 CC OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 CC OX NCBI_TaxID=10090;
 CC (1)
 CC RP SEQUENCE FROM N.A.
 CC RX MEDLINE=99018115; PubMed=9799790;
 CC Lee I.Y., Westaway D., Smit A.F., Wang K., Seto J., Chen L.,
 CC Acharya C., Ankener M., Baskin D., Cooper C., Yao H., Prusiner S.B.,
 CC Hood L.E.;
 CC "Complete genomic sequence and analysis of the prion protein gene
 CC region from three mammalian species.";
 CC Genome Res. 8:1022-1037(1998).
 CC {2}
 CC SEQUENCE FROM N.A.
 CC RX MEDLINE=99457485; PubMed=10525406;
 CC Moore R.C., Lee I.Y., Silverman G.L., Harrison P.M., Strone R.,
 CC Heinrich C., Karunaratne A., Pasternak S.H., Chishti M.A., Liang Y.,
 CC Mastrangelo P., Wang K., Smit A.F.A., Katamine S., Carlson G.A.,
 CC Cohen F.E., Prusiner S.B., Melton D.W., Tremblay P., Hood L.E.,
 CC Westaway D.;
 CC "Ataxia in prion protein (PrP)-deficient mice is associated with
 CC upregulation of the novel PrP-like protein doppel.";
 CC J. Mol. Biol. 292:797-817(1999).
 CC -!- SIMILARITY: Belongs to the prion family.
 CC EMBL; U29187; AAD41440.1; -.
 CC HSSP; P04925; IAG2.
 CC InterPro; IPR000817; Prion.
 CC Pfam; PF00377; Prion; 1.
 CC Pfam; PF03991; Prion octapep; 6.
 CC PRINTS; PR00341; PRION.
 CC SMART; SM00157; PrP; 1.
 CC PROSITE; PS00291; PRION_1; 1.
 CC PROSITE; PS00706; PRION_2; 1.
 CC KW Prion.
 CC SQ SEQUENCE 254 AA; 28010 MW; DF90D0CE858C6CC0 CRC64;
 CC
 CC Query Match 100.0%; Score 86; DB 2; Length 254;
 CC Best Local Similarity 100.0%; Pred. No. 2.3e-05;
 CC Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
Db 142 NDWEDRYRENMYR 155

RESULT 7

Q8VHV6 PRELIMINARY; PRT; 254 AA.
AC Q8VHV6;
DT 01-MAR-2002 (T-EMBLrel. 20, Created)
DT 01-MAR-2002 (T-EMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (T-EMBLrel. 24, Last annotation update)
DE Prion protein.
GN Name=Prp;
OS Apodemus sylvaticus (European woodmouse).
OC Eukaryota; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
OC Apodemus.
OX NCBI_TaxID=10129;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'Ono G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA Di Gardo G., Kretschmar H.A., Wolfer D.P., Lipp H.P.;
RL Submitted (Apr-2001) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AF367823; AAL57230.1; -;
DR HSBP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion_Octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 254 AA; 27857 MW; CB2E5658C47A8885 CRC64;

Query Match 100.0%; Score 86; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
Db 143 NDWEDRYRENMYR 156

RESULT 8

AAD19993 PRELIMINARY; PRT; 254 AA.
AC AAD19993;
DT 02-MAR-2004 (T-EMBLrel. 27, Created)
DT 02-MAR-2004 (T-EMBLrel. 27, Last sequence update)
DT 02-MAR-2004 (T-EMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
GN Prp.
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=brain;
RX MEDLINE=99303687; PubMed=10373359;
RA Wopner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
of flexible regions of the prion protein."
J. Mol. Biol. 289:1163-1178(1999).
DR EMBL; AF117322; AAD19993.1; -;
DR NON_TER 254

SQ SEQUENCE 254 AA; 27804 MW; 28F424D13BEFA2C6 CRC64;
Query Match 100.0%; Score 86; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 2.3e-05;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
Db 143 NDWEDRYRENMYR 156

RESULT 9

Q6JUY8 PRELIMINARY; PRT; 67 AA.
AC Q6JUY8;
DT 05-JUL-2004 (T-EMBLrel. 27, Created)
DT 05-JUL-2004 (T-EMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (T-EMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA Zhang L., Li N., Fan B.;
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY304007; AAQ81752.1; -;
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Prion.
FT NON_TER 1
FT NON_TER 67
SQ SEQUENCE 67 AA; 8161 MW; DE400AD18417A3B2 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 67;
Best Local Similarity 92.9%; Pred. No. 0.00013;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
|||||
Db 16 NDWEDRYRENMYR 29

RESULT 10

Q6JUY9 PRELIMINARY; PRT; 67 AA.
AC Q6JUY9;
DT 05-JUL-2004 (T-EMBLrel. 27, Created)
DT 05-JUL-2004 (T-EMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (T-EMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA Zhang L., Li N., Fan B.;
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY304006; AAQ81751.1; -;
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Prion.
FT NON_TER 1
FT NON_TER 67
SQ SEQUENCE 67 AA; 8176 MW; C4690AD18417A3B2 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 67;
Best Local Similarity 92.9%; Pred. No. 0.00013;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

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QY 1 NDWEDRYRENMYR 14
Db 16 NDYEDRYRENMYR 29

RESULT 11
AAQ81751
ID AAQ81751 PRELIMINARY; PRT; 67 AA.
AC AAQ81751;
DT 01-JUN-2004 (T-EMBLrel. 27, Created)
DT 01-JUN-2004 (T-EMBLrel. 27, Last sequence update)
DT 01-JUN-2004 (T-EMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA Zhang L., Li N., Fan B.;
RT "PrP gene polymorphisms in ovine and bovine in China.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY304006; AAQ81751.1; -.
KW Prion.
FT NON_TER 1
FT NON_TER 67
SQ SEQUENCE 67 AA; 8176 MW; C4690AD18417A3B2 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 67;
Best Local Similarity 92.9%; Pred. No. 0.00013;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 16 NDYEDRYRENMYR 29

RESULT 12
AAQ81752
ID AAQ81752 PRELIMINARY; PRT; 67 AA.
AC AAQ81752;
DT 01-JUN-2004 (T-EMBLrel. 27, Created)
DT 01-JUN-2004 (T-EMBLrel. 27, Last sequence update)
DT 01-JUN-2004 (T-EMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA Zhang L., Li N., Fan B.;
RT "PrP gene polymorphisms in ovine and bovine in China.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY304007; AAQ81752.1; -.
KW Prion.
FT NON_TER 1
FT NON_TER 67
SQ SEQUENCE 67 AA; 8161 MW; DE400AD18417A3B2 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 67;
Best Local Similarity 92.9%; Pred. No. 0.00013;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 16 NDYEDRYRENMYR 29

RESULT 13
AAQ81753
ID AAQ81753 PRELIMINARY; PRT; 124 AA.
AC AAQ81753;
DT 01-MAY-2000 (T-EMBLrel. 13, Created)
DT 01-MAY-2000 (T-EMBLrel. 13, Last sequence update)
DT 01-OCT-2003 (T-EMBLrel. 25, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP;
OS Varecia variegata variegata (Black and white ruffed lemur).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Strepsirhini; Lemnidae; Varecia.
OX NCBI_TaxID=87289;
RN [1]
RP SEQUENCE FROM N.A.
RA Gilch S., Schatzl H.M.;
RT Submitted (AUG-1999) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AF177293; AAD5435.1; -.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion_octapep; 3.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
KW Prion.
FT NON_TER 1
FT NON_TER 124
SQ SEQUENCE 124 AA; 13436 MW; CC2C8A5A855A7C94 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 124;
Best Local Similarity 92.9%; Pred. No. 0.00026;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 76 NDYEDRYRENMYR 89

RESULT 14
Q6PR45
ID Q6PR45 PRELIMINARY; PRT; 134 AA.
AC Q6PR45;
DT 05-JUL-2004 (T-EMBLrel. 27, Created)
DT 05-JUL-2004 (T-EMBLrel. 27, Last sequence update)
DT 05-JUL-2004 (T-EMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP; (Sheep).
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP SEQUENCE FROM N.A.
RA Wang Z., Zhang H.;
RL Submitted (MAR-2004) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AY585240; AAT09129.1; -.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion; 1.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
FT NON_TER 1
FT NON_TER 134
SQ SEQUENCE 134 AA; 15189 MW; 5EFE392B89FD0988 CRC64;

Query Match 89.5%; Score 77; DB 2; Length 134;
Best Local Similarity 92.9%; Pred. No. 0.00029;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 NDWEDRYRENMYR 14
Db 76 NDYEDRYRENMYR 89
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Db      53 NDYEDRYRENMYR 66

RESULT 15
AAT09129
ID AAT09129 PRELIMINARY; PRT; 134 AA.
AC AAT09129;
DT 12-MAY-2004 (TrEMBLrel. 27, Created)
DT 12-MAY-2004 (TrEMBLrel. 27, Last sequence update)
DE 12-MAY-2004 (TrEMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
GN PRNP.
OS Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]_TaxID=9940;
RP SEQUENCE FROM N.A.
RC STRAIN=blood;
RA Wang Z., Zhang H.;
RT "Cloning and expression of PK-resistant core of PrP from little-fat-
RT tail sheep (in E. coli.);
RL Submitted (MAR-2004) to the EMBL/GenBank/DBJ databases.
DR EMBL; AY585240; AAT09129.1; -.
KW Prion.
FT NON_TER 1 1
FT NON_TER 134 134
SQ SEQUENCE 134 AA; 15189 MW; 5EFE392B89FD0988 CRC64;

Query Match      89.5%; Score 77; DB 2; Length 134;
Best Local Similarity 92.9%; Pred. No. 0.00029;
Matches 13; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy      1 NDWEDRYRENMYR 14
      ||:|||||
Db      53 NDYEDRYRENMYR 66

Search completed: October 26, 2004, 15:44:10
Job time : 35.5417 secs

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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:33:38 ; Search time 34.4167 seconds
(without alignments)
145.924 Million cell updates/sec

Title: US-09-603-832-6

Perfect score: 71

Sequence: 1 CVNITIKQTVTTT 14

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 2002273 seqs, 358729299 residues

Total number of hits satisfying chosen parameters: 2002273

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : A Genesepc_238sep04.*

1: Genesepc1980s.*

2: Genesepc1990s.*

3: Genesepc2000s.*

4: Genesepc2001s.*

5: Genesepc2002s.*

6: Genesepc2003as.*

7: Genesepc2003bs.*

8: Genesepc2004s.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	60.5	85.2	22	5	AU99430 Human pri
2	60.5	85.2	23	5	AU99432 Mouse pri
3	60.5	85.2	23	5	AU99433 Syrian ha
4	60.5	85.2	25	5	AB81631 Prion mim
5	60.5	85.2	25	7	ABU64309 Transmis
6	60.5	85.2	25	8	AD004596 Prion mim
7	60.5	85.2	31	7	ADD24220 Human pri
8	60.5	85.2	33	2	AAR38045 Human pri
9	60.5	85.2	117	5	ABG34357 Modified
10	60.5	85.2	117	5	ABG80669 Human pri
11	60.5	85.2	117	7	ADD24196 Modified
12	60.5	85.2	124	5	ABG94340 Mouse mpr
13	60.5	85.2	124	5	ABG80652 Mouse tru
14	60.5	85.2	124	7	ADD24200 mPrPt-EK
15	60.5	85.2	142	2	AAM17686 Prion pro
16	60.5	85.2	142	2	AAM92807 Mouse rPr
17	60.5	85.2	163	7	ADB63859 Human pro
18	60.5	85.2	194	8	ABO58347 Human gen
19	60.5	85.2	200	5	ABG31907 Human pri
20	60.5	85.2	208	3	AA07316 Mouse pri
21	60.5	85.2	208	3	AA07318 Human pri
22	60.5	85.2	208	3	AA07327 Mouse pri
23	60.5	85.2	208	3	AA07329 Human pri
24	60.5	85.2	208	4	AA082110 Hamster p
25	60.5	85.2	208	5	ABG31902 Human pri

26	60.5	85.2	208	5	ABG31904	Abg31904 Chimera-t
27	60.5	85.2	208	5	AAE15601	Aae15601 Hamster p
28	60.5	85.2	208	7	ADJ66133	Adj66133 Mouse pri
29	60.5	85.2	209	5	ABG31905	Abg31905 HCHV type
30	60.5	85.2	211	4	ABG30801	Abg30801 HCHV type
31	60.5	85.2	212	4	ABG30802	Abg30802 Amino aci
32	60.5	85.2	225	6	ABR42793	AbR42793 Rat prion
33	60.5	85.2	226	7	ADB85240	ADB85240 Rat prion
34	60.5	85.2	245	4	ABG72342	Abg72342 Monkey pr
35	60.5	85.2	245	4	ABG72352	Abg72352 Cercopith
36	60.5	85.2	253	2	AA86715	Aar86715 Human pri
37	60.5	85.2	253	2	AAW69660	Aaw69660 Human pri
38	60.5	85.2	253	2	AAW85901	Aaw85901 Human pri
39	60.5	85.2	253	2	AAV07994	Aay07994 Human pri
40	60.5	85.2	253	3	AAV81485	Aay81485 Human pri
41	60.5	85.2	253	3	AA06272	Aab06272 Human pri
42	60.5	85.2	253	3	AA015035	Aab15035 Human pri
43	60.5	85.2	253	4	ABG72339	Abg72339 Chimpanze
44	60.5	85.2	253	4	ABG72347	Abg72347 Prion pro
45	60.5	85.2	253	4	ABG72353	Abg72353 Guereza p

ALIGNMENTS

RESULT 1

AAU99430
ID AAU99430 standard; peptide; 22 AA.

AC AAU99430;

DT 07-OCT-2002 (first entry)

DE Human prion protein (3pte) helical segment.

XX I-helical conformation; discordant helix; amyloid beta-peptide; I-helix;
XX theta-strand structure; amyloidogenic disorder; Abeta; amyloidosis;
XX Alzheimer's disease; prion disease; scrapie; BSE;
XX bovine spongiform encephalopathy; Creutzfeldt-Jacob disease; CJD;
XX fibrillation; aggregation; neurotropic; neuroprotective; PDB;
XX protein databank code; 3pte; prion protein; human; hPrP.

OS Homo sapiens.

XX WO200241002-A2.

XX 23-MAY-2002.

XX 20-NOV-2001; 2001WO-GB005117.

XX 20-NOV-2000; 2000US-0253695P.

XX 06-DEC-2000; 2000US-0251662P.

XX (ALPH-) ALPHABETA AB.

XX (WHIT/) WHITE M P.

XX White MP, Johansson J;

XX WPI; 2002-519389/55.

XX Identifying compounds that stabilize I-helix of discordant helix in
XX polypeptide, by measuring amount of I-helix in sample containing
XX discordant helix-containing polypeptide in presence and absence of
XX compound.

XX Example 1; Fig 2A; 55pp; English.

XX The present invention relates to a method of identifying a compound that
XX stabilizes an I-helical conformation of a discordant helix in a
XX polypeptide, particularly amyloid beta-peptide (Abeta). The method
XX comprises providing a test sample comprising a polypeptide that contains
XX a discordant helix in the form of an I-helix, contacting the test sample
XX with a test compound and determining the rate of decrease in the amount

CC of I-helix or the amount of I-helix present in the test sample. The
 CC method is useful for identifying a compound that stabilizes an I-helical
 CC conformation of a discordant helix in a polypeptide. Such compounds are
 CC useful for decreasing the rate of formation of theta-strand structures
 CC between at least two discordant helix-containing polypeptides, and for
 CC treating amyloidogenic disorders such as amyloidosis in Alzheimer's
 CC disease, and prion diseases (e.g. scrapie, bovine spongiform
 CC encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446
 CC represent >9-residue discordant helical segments from various proteins
 CC

SQ Sequence 22 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 22;
 Best Local Similarity 93.3%; Pred. No. 0.0021; 0; Mismatches 0; Indels 1; Gaps 1;
 Matches 14; Conservative

QY 1 CVNITIKQ-TVTTT 14
 Db 7 CVNITIKQHTVTTT 21

RESULT 2
 AAU99432
 ID AAU99432 standard; peptide; 23 AA.

XX AC AAU99432;
 XX DT 07-OCT-2002 (first entry)
 XX DE Mouse prion protein (Iag2) helical segment.
 XX I-helical conformation; discordant helix; amyloid beta-peptide; I-helix;
 KW theta-strand structure; amyloidogenic disorder; Abeta; amyloidosis;
 KW Alzheimer's disease; prion disease; scrapie; BSE;
 KW bovine spongiform encephalopathy; Creutzfeld-Jacob disease; CJD;
 KW fibrillation; aggregation; neurotropic; neuroprotective; PDB;
 KW protein databank code; Iag2; prion protein; mouse; mPrP.

XX OS Mus sp.
 XX PN WO200241002-A2.
 XX PD 23-MAY-2002.
 XX PF 20-NOV-2001; 2001WO-GB005117.
 XX PR 20-NOV-2000; 2000US-0253695P.
 XX PR 06-DEC-2000; 2000US-0251662P.
 XX PA (ALPH-) ALPHABETA AB.
 XX PA (WHIT/) WHITE M P.

XX PI White MP, Johansson J;
 XX DR WPI; 2002-519389/55.
 XX PT Identifying compounds that stabilize I-helix of discordant helix in
 PT polypeptide, by measuring amount of I-helix in sample containing
 PT discordant helix-containing polypeptide in presence and absence of
 PT compound.

XX Example 1; Fig 2A; 55pp; English.
 XX The present invention relates to a method of identifying a compound that
 CC stabilizes an I-helical conformation of a discordant helix in a
 CC polypeptide, particularly amyloid beta-peptide (Abeta). The method
 CC comprises providing a test sample comprising a polypeptide that contains
 CC a discordant helix in the form of an I-helix, contacting the test sample
 CC with a test compound and determining the rate of decrease in the amount
 CC of I-helix or the amount of I-helix present in the test sample. The
 CC method is useful for identifying a compound that stabilizes an I-helical
 CC conformation of a discordant helix in a polypeptide. Such compounds are
 CC useful for decreasing the rate of formation of theta-strand structures

CC between at least two discordant helix-containing polypeptides, and for
 CC treating amyloidogenic disorders such as amyloidosis in Alzheimer's
 CC disease, and prion diseases (e.g. scrapie, bovine spongiform
 CC encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446
 CC represent >9-residue discordant helical segments from various proteins
 CC

SQ Sequence 23 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 23;
 Best Local Similarity 93.3%; Pred. No. 0.0022;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTT 14
 Db 8 CVNITIKQHTVTTT 22

RESULT 3
 AAU99433
 ID AAU99433 standard; peptide; 23 AA.

XX AC AAU99433;
 XX DT 07-OCT-2002 (first entry)
 XX DE Syrian hamster prion protein (Ib10) helical segment.
 XX I-helical conformation; discordant helix; amyloid beta-peptide; I-helix;
 KW theta-strand structure; amyloidogenic disorder; Abeta; amyloidosis;
 KW Alzheimer's disease; prion disease; scrapie; BSE;
 KW bovine spongiform encephalopathy; Creutzfeld-Jacob disease; CJD;
 KW fibrillation; aggregation; neurotropic; neuroprotective; PDB;
 KW protein databank code; Ib10; prion protein; syrian hamster; sPrP.
 XX OS Mesocricetus auratus.
 XX PN WO200241002-A2.
 XX PD 23-MAY-2002.
 XX PF 20-NOV-2001; 2001WO-GB005117.
 XX PR 20-NOV-2000; 2000US-0253695P.
 XX PR 06-DEC-2000; 2000US-0251662P.
 XX PA (ALPH-) ALPHABETA AB.
 XX PA (WHIT/) WHITE M P.
 XX PI White MP, Johansson J;
 XX DR WPI; 2002-519389/55.
 XX PT Identifying compounds that stabilize I-helix of discordant helix in
 PT polypeptide, by measuring amount of I-helix in sample containing
 PT discordant helix-containing polypeptide in presence and absence of
 PT compound.

XX Example 1; Fig 2A; 55pp; English.
 XX The present invention relates to a method of identifying a compound that
 CC stabilizes an I-helical conformation of a discordant helix in a
 CC polypeptide, particularly amyloid beta-peptide (Abeta). The method
 CC comprises providing a test sample comprising a polypeptide that contains
 CC a discordant helix in the form of an I-helix, contacting the test sample
 CC with a test compound and determining the rate of decrease in the amount
 CC of I-helix or the amount of I-helix present in the test sample. The
 CC method is useful for identifying a compound that stabilizes an I-helical
 CC conformation of a discordant helix in a polypeptide. Such compounds are
 CC useful for decreasing the rate of formation of theta-strand structures
 CC between at least two discordant helix-containing polypeptides, and for
 CC treating amyloidogenic disorders such as amyloidosis in Alzheimer's
 CC disease, and prion diseases (e.g. scrapie, bovine spongiform
 CC encephalopathy (BSE), Creutzfeld-Jacob disease (CJD)). AAU99426-AAU99446

CC represent >9-residue discordant helical segments from various proteins

SQ Sequence 23 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 23;
 Best Local Similarity 93.3%; Pred. No. 0.0022;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CUNITIKO-TVTTTT 14
 ||||| |||||
 DB 8 CUNITIKOHTVTTTT 22

RESULT 4
 ABB81631
 ID ABB81631 standard; peptide; 25 AA.
 XX ABB81631;
 AC ABB81631;
 DT 25-SEP-2002 (first entry)
 DE Prion mimetic peptide SEQ ID NO:3.
 XX
 KW Prion mimetic peptide; degradation; detection; TSE; infection;
 KW transmissible spongiform encephalopathy; prion protein; sterilisation;
 KW immunisation; Creutzfeldt-Jacob disease; kuru; fatal familial insomnia;
 KW Gerstmann-Strausler-Scheinker syndrome; chronic wasting disease;
 KW bovine spongiform encephalopathy; feline spongiform encephalopathy;
 KW scrapie; transmissible mink encephalopathy.
 XX
 OS Synthetic.
 XX
 XX WO200253723-A2.
 XX
 XX 11-JUL-2002.
 XX
 XX 08-JAN-2002; 2002WO-GB0000052.
 XX
 XX 08-JAN-2001; 2001GB-00000420.
 XX
 XX 26-FEB-2001; 2001GB-00004696.
 XX
 XX (MICR-) MICROBIOLOGICAL RES AUTHORITY.
 XX
 XX Raven NDH;
 XX
 XX WPI; 2002-557743/59.
 XX
 XX Inactivating transmissible spongiform encephalopathy (TSE) agent such as
 PT Creutzfeldt-Jacob disease, scrapie, kuru or Gerstmann-Strausler-
 PT Scheinker syndrome involves exposing agent to thermostable proteolytic
 PT enzyme.
 XX
 XX Example; Page 19; 41pp; English.
 XX
 XX The present invention describes a method (M1) for inactivating a
 CC transmissible spongiform encephalopathy (TSE) agent comprising exposing
 CC the TSE agent to a thermostable proteolytic enzyme. Also described: (1) a
 CC composition (I) for inactivating a TSE agent, comprising a thermostable
 CC proteolytic enzyme; (2) an antibody (II) specific for a prion dimer which
 CC does not bind to a prion monomer; and (3) a purified prion dimer. (M1) is
 CC useful for inactivating a TSE agent such as a prion. A TSE agent is
 CC Creutzfeldt-Jacob disease or its variant, kuru, fatal familial insomnia,
 CC Gerstmann-Strausler-Scheinker syndrome, bovine spongiform
 CC encephalopathy, scrapie, feline spongiform encephalopathy, chronic
 CC wasting disease or transmissible mink encephalopathy. (I) is useful for
 CC sterilising material contaminated with the TSE agent. A prion dimer is
 CC useful for examining a sample infected with or suspected to be infected
 CC by a prion protein, and for detecting prion infectivity, by detecting a
 CC prion dimer in the sample. A prion dimer is useful for producing (II), by
 CC immunising an animal with a prion dimer, obtaining its extract which
 CC contains (II), and isolating (II) from the extract. The method comprises
 CC obtaining an antibody preparation containing antibodies which bind a
 CC prion dimer, and removing (II) from the preparation. (M1) and (I) are

CC useful for inactivating TSE agents in potentially contaminated clinical
 CC waste and culled animal material. (M1) is useful for sterilising larger
 CC surface areas of apparatus, operating tables or even walls of rooms. The
 CC present sequence represents a prion mimetic peptide which is used in an
 CC example from the present invention in the preparation of antibodies
 CC including dimer preferential antibodies

XX Sequence 25 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 25;
 Best Local Similarity 93.3%; Pred. No. 0.0024;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CUNITIKO-TVTTTT 14
 ||||| |||||
 DB 1 CUNITIKOHTVTTTT 15

RESULT 5
 ABB64309
 ID ABB64309 standard; peptide; 25 AA.
 XX ABB64309;
 AC ABB64309;
 DT 11-MAR-2004 (first entry)
 DE Transmissible spongiform encephalopathy prion protein fragment #7.
 XX
 KW Transmissible spongiform encephalopathy; TSE; antibody; dimer;
 KW antiinflammatory; neuroprotective; sedative.
 XX
 OS Unidentified.
 XX
 XX WO2003080665-A2.
 XX
 XX 02-OCT-2003.
 XX
 XX 20-MAR-2003; 2003WO-GB001295.
 XX
 XX 20-MAR-2002; 2002GB-00006584.
 XX
 XX 11-JUL-2002; 2002GB-00016098.
 XX
 XX (MICR-) MICROBIOLOGICAL RES AUTHORITY.
 XX
 XX Raven NDH, Sutton JM, Murdoch H;
 XX
 XX WPI; 2003-779246/73.
 XX
 XX Treating transmissible spongiform encephalopathy (TSE) infection
 PT comprises administering an antibody that binds to a dimer of a prion
 PT protein.
 XX
 XX Claim 5; Page 40; 40pp; English.
 XX
 XX The present invention relates to a method of treating transmissible
 CC spongiform encephalopathy (TSE) infection, comprising administering an
 CC antibody that binds to a dimer of a prion protein. The methods and
 CC compositions are useful for treating TSE, Creutzfeldt-Jacob disease,
 CC variant Creutzfeldt-Jacob disease, Kuru, fatal familial insomnia,
 CC Gerstmann-Strausler-Scheinker syndrome, bovine spongiform
 CC encephalopathy, scrapie, feline spongiform encephalopathy, chronic
 CC wasting disease and transmissible mink encephalopathy. Antigens are
 CC useful for the manufacture of a medicament for stimulating antibody
 CC production. The present sequence is a peptide fragment of a TSE prion
 CC protein.

XX Sequence 25 AA;

Query Match 85.2%; Score 60.5; DB 7; Length 25;
 Best Local Similarity 93.3%; Pred. No. 0.0024;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CUNITIKO-TVTTTT 14

```

Db      1 CWNITIKQHTVTTTT 15

RESULT 6
ID      ADD24220;
XX      15-JAN-2004 (first entry)
AC      Human prion protein PrP peptide #6.
XX      vaccine composition; virus-like particle; core particle;
XX      first attachment site; antigen; antigenic determinant; prion protein;
XX      PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
XX      prion disease; Bovine Spongiform Encephalopathy; BSE;
XX      Creutzfeldt-Jakob Disease; prion.
XX      OS
XX      prion.
XX      WO2003059386-A2.
XX      24-JUL-2003.
XX      17-JAN-2003; 2003WO-EP000460.
XX      18-JAN-2002; 2002US-00050902.
XX      21-JAN-2002; 2002WO-1B000166.
XX      08-JUL-2002; 2002US-039272SP.
XX      18-JUL-2002; 2002US-0396590P.
XX      (CYTO-) CYTOS BIOTECHNOLOGY AG.
XX      Bachmann M, Maurer P, Pelliccioli E, Renner WA;
XX      WPI; 2003-598483/56.
XX      A vaccine composition for preventing or treating prion diseases (e.g.
XX      Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA
XX      particle) and at least one prion protein or peptide bound to the virus-like
XX      particle.
XX      Disclosure; Page 81; 246pp; English.
XX      This invention relates to a novel vaccine composition comprising a virus-
XX      like or a core particle with at least one first attachment site and at
XX      least one antigen or antigenic determinant that is a prion protein (PrP)
XX      or its dimer, or a PrP peptide, the antigen or antigenic determinant
XX      being bound to the virus-like or core particle. The vaccine of the
XX      invention may have neuroprotective or antiinflammatory activity. The
XX      composition is useful as a medicament or in manufacturing a medicament
XX      for the treatment or prevention of prion diseases. The prion diseases may
XX      include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
XX      Disease. The present sequence is that of a peptide fragment of a prion
XX      protein which may be used for the production of the vaccine of the
XX      invention.
XX      Sequence 31 AA;
XX      Query Match      85.2%; Score 60.5; DB 7; Length 31;
XX      Best Local Similarity 93.3%; Pred. No. 0.003;
XX      Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy      1 CWNITIKQ-TVTTTT 14
Db      6 CWNITIKQHTVTTTT 20

RESULT 8
ID      AAR38045
XX      AAR38045 standard; protein; 33 AA.
XX      AAR38045;
XX      25-MAR-2003 (revised)
XX      14-OCT-1993 (first entry)
XX      Human prion protein region F #1.
XX      DE
```

```

Db      1 CWNITIKQHTVTTTT 15

RESULT 6
ID      ADD24220;
XX      15-JAN-2004 (first entry)
AC      Human prion protein PrP peptide #6.
XX      vaccine composition; virus-like particle; core particle;
XX      first attachment site; antigen; antigenic determinant; prion protein;
XX      PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
XX      prion disease; Bovine Spongiform Encephalopathy; BSE;
XX      Creutzfeldt-Jakob Disease; prion.
XX      OS
XX      prion.
XX      WO2003059386-A2.
XX      24-JUL-2003.
XX      17-JAN-2003; 2003WO-EP000460.
XX      18-JAN-2002; 2002US-00050902.
XX      21-JAN-2002; 2002WO-1B000166.
XX      08-JUL-2002; 2002US-039272SP.
XX      18-JUL-2002; 2002US-0396590P.
XX      (CYTO-) CYTOS BIOTECHNOLOGY AG.
XX      Bachmann M, Maurer P, Pelliccioli E, Renner WA;
XX      WPI; 2003-598483/56.
XX      A vaccine composition for preventing or treating prion diseases (e.g.
XX      Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA
XX      particle) and at least one prion protein or peptide bound to the virus-like
XX      particle.
XX      Disclosure; Page 81; 246pp; English.
XX      This invention relates to a novel vaccine composition comprising a virus-
XX      like or a core particle with at least one first attachment site and at
XX      least one antigen or antigenic determinant that is a prion protein (PrP)
XX      or its dimer, or a PrP peptide, the antigen or antigenic determinant
XX      being bound to the virus-like or core particle. The vaccine of the
XX      invention may have neuroprotective or antiinflammatory activity. The
XX      composition is useful as a medicament or in manufacturing a medicament
XX      for the treatment or prevention of prion diseases. The prion diseases may
XX      include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
XX      Disease. The present sequence is that of a peptide fragment of a prion
XX      protein which may be used for the production of the vaccine of the
XX      invention.
XX      Sequence 31 AA;
XX      Query Match      85.2%; Score 60.5; DB 8; Length 25;
XX      Best Local Similarity 93.3%; Pred. No. 0.0024;
XX      Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy      1 CWNITIKQ-TVTTTT 14
Db      1 CWNITIKQHTVTTTT 15

RESULT 7
ID      ADD24220
XX      ADD24220 standard; peptide; 31 AA.
XX      DE
```


XX Antigen; prion; protein; region; frame shift; repeat; mutation; PrPc; FSa; FSB; subfragment; antibody; treatment; spongiform encephalopathy; human; sheep; cattle; cellular binding; aggregation; mammal; scrapie; immune system; PrPsc; ratio-inverso peptide; enzymatic degradation; resistance.

XX Synthetic.

XX Key Location/Qualifiers

PH Misc-difference 1 /note= "One or more residues or may be absent"

FT Misc-difference 2 /note= "May be absent"

FT Misc-difference 3 /note= "May be absent"

FT Misc-difference 4 /note= "May be absent"

FT Misc-difference 5 /note= "May be absent"

FT Misc-difference 29 /note= "May be absent"

FT Misc-difference 30 /note= "May be absent"

FT Misc-difference 31 /note= "May be absent"

FT Misc-difference 32 /note= "May be absent"

FT Misc-difference 33 /note= "One or more residue or may be absent"

XX WO9311155-A1.

XX 10-JUN-1993.

XX 03-DEC-1992; 92WO-GB002246.

XX 03-DEC-1991; 91GB-00025747.

XX 10-JUL-1992; 92GB-00014663.

XX (PROT-) PROTEUS MOLECULAR DESIGN LTD.

XX Fishleigh RV, Robson B, Mee RP;

XX WPI; 1993-196994/24.

XX New polypeptide(s) contg. antigenic site of prion. protein - useful for treatment and diagnosis of mammalian encephalopathies e.g. Creutzfeldt-Jakob disease and kuru.

XX Claim 28; Page 74; 82pp; English.

XX The sequences given in AAR38041-48 represent polypeptides which are derived from an antigenic site, region F, of a prion protein. Prion proteins comprise six regions of interest (A-F), and two related frame shift peptides sequences caused by a repeating section in region E having a nucleic acid coding sequence frame shift mutation of +1 (Fsa) or -1 (Fsb). These peptides (see also AAR38041-48) and antibodies raised against these may be used to treat or prevent spongiform encephalopathy in humans, sheep or cattle. They can be used to block cellular binding and aggregation of prion proteins and to stimulate the mammalian immune system. These peptides may be used to distinguish between the normal form of prion protein (PrPc) and the scrapie-associated form (PrPsc). These peptides may include rare or synthetic amino acids or a ratio- inverso peptide modification to improve resistance to enzymatic degradation. (Updated on 25-MAR-2003 to correct FN field.)

XX Sequence 33 AA;

Query Match 85.2%; Score 60.5; DB 2; Length 33;
Best Local Similarity 93.3%; Pred. No. 0.0032;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Oy 1 CWNITIKQ-TVTTTT 14
Db ||||||| ||||| 21
7 CWNITIKQHTTTTT 21

RESULT 9
ABG94357
ID ABG94357 standard; protein; 117 AA.
XX
AC ABG94357;
XX
DT 10-DEC-2002 (first entry)
XX
DE Modified human prion protein fragment.
XX
KW Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;
KW cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
KW vaccine; infectious disease.
XX
OS Homo sapiens.
XX
PN WO200256905-A2.
XX
PD 25-JUL-2002.
XX
PF 21-JAN-2002; 2002WO-IB000166.
XX
PR 19-JAN-2001; 2001US-0262379P.
PR 04-MAY-2001; 2001US-0288549P.
PR 05-OCT-2001; 2001US-0326998P.
PR 07-NOV-2001; 2001US-0331045P.
XX
PA (CYTO-) CYTOS BIOTECHNOLOGY AG.
XX
XX Renner WA, Bachmann M, Tisot A, Maurer P, Lechner F, Sebbel P;
XX Piossek C;
XX
XX WPI; 2002-627351/67.
XX
XX Molecular antigen array used in the production of vaccines for infectious diseases.
XX
XX Disclosure; Page 441; 441pp; English.
XX
XX This invention relates to a novel ordered and repetitive antigen array used in the production of vaccines for infectious diseases. The invention also discloses a composition comprising a non-natural molecular scaffold comprising a core particle selected from a core particle of a non-natural origin and a core particle of natural origin and an organiser comprising at least one first attachment site, where the organiser is connected to the core particle by at least one covalent bond. Also disclosed is an antigen or antigenic determinant with at least one second attachment site, where the antigen or antigenic determinant is amyloid beta peptide (Abeta1-42) or its fragment and where the second attachment site is selected from an attachment site not naturally occurring with the antigen or antigenic determinant and an attachment site naturally occurring with the antigen or antigenic determinant, where the second attachment site is capable of association through at least one non-peptide bond to the first attachment site and where the antigen or antigenic determinant and the scaffold interact through the association to form an ordered and repetitive antigen array. The invention also comprises a coat protein capable of forming a capsid which comprises mutant beta coat proteins having an amino acid sequence selected from five amino acid sequences fully defined in the specification. The compounds of the invention may have antimicrobial, antiallergic, immunomodulatory, cytostatic, antiviral, antidiabetic, or hypoglycaemic activities and may be used in immunisation and as a vaccine. The present sequence represents a protein sequence used to create the compositions of the invention

XX
SQ Sequence 117 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 117;
Best Local Similarity 93.3%; Pred. No. 0.012;

Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14
 DB 58 CVNITIKQHTVTTTT 72

RESULT 10
 ABG80669 standard; protein; 117 AA.
 AC ABG80669;
 XX
 XX 29-NOV-2002 (first entry)
 XX Human prion protein/cysteine-containing peptide fusion protein.
 XX Molecular antigen array; vaccine; antigen; antimicrobial; mutant;
 KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;
 KW graft versus host disease; Igs-mediated allergic reaction; anaphylaxis;
 KW adult respiratory distress syndrome; ARDS; Crohn's disease;
 KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;
 KW Grave's disease; systemic lupus erythematosus; osteoporosis;
 KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;
 KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;
 KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;
 KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;
 KW enterokinase; cysteine-containing linker.
 XX Homo sapiens.
 OS Synthetic.
 XX
 XX WO200256907-A2.
 XX
 XX 25-JUL-2002.
 XX
 XX 21-JAN-2002; 2002WO-IB000168.
 XX
 XX 19-JAN-2001; 2001US-0262379P.
 PR 04-MAY-2001; 2001US-0288549P.
 PR 05-OCT-2001; 2001US-0326988P.
 PR 07-NOV-2001; 2001US-0331045P.
 XX
 XX (CYTO-) CYTOS BIOTECHNOLOGY AG.
 PA (NOVS) NOVARTIS PHARMA AG.
 PA (MAUR) MAURER P.
 PA (LECH) LECHNER F.
 PA (ORTM) ORTMANN R.
 PA (LUEO) LUEOEND R.
 PA (STAU) STAUFENBIEL M.
 PA (FREY) FREY P.
 XX
 XX Maurer P, Lechner F, Ortmann R, Lueoend R, Staufenbiel M, Frey P;
 PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;
 XX
 XX WPI; 2002-636514/68.
 DR
 XX Molecular antigen array used in the production of vaccines for infectious
 PT diseases.
 PT
 XX Disclosure; Page 418; 418pp; English.
 PS
 XX The invention relates to a composition comprising: (a) a non-natural
 CC molecular scaffold comprising: (i) a core particle selected from: (i) a
 CC core particle of a non-natural origin; and (ii) a core particle of natural
 CC origin; and (ii) an organiser comprising at least one first attachment
 CC site, where the organiser is connected to the core particle by at least
 CC one covalent bond; (b) an antigen or antigenic determinant with at least
 CC one second attachment site, where the antigen or antigenic determinant is
 CC amyloid beta peptide (Abeta 1-42) or its fragment, and where the second
 CC attachment site is selected from: (i) an attachment site not naturally
 CC occurring with the antigen or antigenic determinant; and (ii) an
 CC attachment site naturally occurring with the antigen or antigenic

determinant, where the second attachment site is capable of association
 through at least one non-peptide bond to the first attachment site; and
 where the antigen or antigenic determinant and the scaffold interact
 through the association to form an ordered and repetitive antigen array.
 Also included is a process for producing a non-naturally occurring
 ordered and repetitive antigen array. The composition is used in
 immunisation and as a vaccine for diseases such as influenza, graft
 versus host disease, Igs-mediated allergic reactions, anaphylaxis, adult
 respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,
 acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,
 systemic lupus erythematosus, inflammatory immune diseases, myasthenia
 gravis, immunoproliferative disease lymphadenopathy,
 angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,
 rheumatoid arthritis, diabetes, multiple sclerosis, osteoporosis and
 infectious diseases. The present sequence is a modified
 antigen for use in the array of the invention. The antigen is modified to
 possess a cleavage site (enterokinase or factor Xa) and a Cysteine-
 containing N- or C-terminal linker peptide which serves as the attachment
 point to a virus like particle or bacterial protein (the scaffold
 protein)

Query Match 85.2%; Score 60.5; DB 5; Length 117;
 Best Local Similarity 93.3%; Pred. No. 0.012; Mismatches 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14
 DB 58 CVNITIKQHTVTTTT 72

RESULT 11
 ADD24196
 ID ADD24196 standard; protein; 117 AA.
 XX
 AC ADD24196;
 XX
 XX 15-JAN-2004 (first entry)
 DT
 XX Modified human prion protein amino acid sequence.
 DE
 XX vaccine composition; virus-like particle; core particle;
 KW first attachment site; antigen; antigenic determinant; prion protein;
 KW PrP; PrP peptide; vaccine; neuroprotective; anti-inflammatory;
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;
 KW Creutzfeldt-Jakob Disease; prion; mutant; mutein.
 XX
 OS Synthetic.
 OS prion.
 XX
 XX WO2003059386-A2.
 PN
 XX 24-JUL-2003.
 PD
 XX
 XX 17-JAN-2003; 2003WO-EP000460.
 PF
 XX 18-JAN-2002; 2002US-00050902.
 PR 21-JAN-2002; 2002WO-IB000166.
 PR 08-JUL-2002; 2002US-0393725P.
 PR 18-JUL-2002; 2002US-0396590P.
 XX
 XX (CYTO-) CYTOS BIOTECHNOLOGY AG.
 PA
 XX Bachmann M, Maurer P, Pelliccioli E, Renner WA;
 PI WPI; 2003-598483/56.
 XX
 XX A vaccine composition for preventing or treating prion diseases (e.g.
 PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-
 PT phage) and at least one prion protein or peptide bound to the virus-like
 PT particle.

PS Disclosure; SEQ ID NO 89; 246pp; English.

XX This invention relates to a novel vaccine composition comprising a virus-
CC like or a core particle with at least one first attachment site and at
CC least one antigen or antigenic determinant that is a prion protein (PrP)
CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
CC being bound to the virus-like or core particle. The vaccine of the
CC invention may have neuroprotective or antiinflammatory activity. The
CC composition is useful as a medicament or in manufacturing a medicament
CC for the treatment or prevention of prion diseases. The prion diseases may
CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
CC Disease. The present sequence is the amino acid sequence of a modified
CC human prion protein (PrP) which may be used during the creation of the
CC vaccine composition of the invention.

XX Sequence 117 AA;

Query Match 85.2%; Score 60.5; DB 7; Length 117;
Best Local Similarity 93.3%; Pred. No. 0.012; Mismatches 0; Indels 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
Db 58 CWNITIKQHVTITTT 72

RESULT 12

ABG94340
ID ABG94340 standard; protein; 124 AA.

XX AC ABG94340;

XX DT 10-DEC-2002 (first entry)

XX DE Mouse mPrP protein.

XX Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;
KW cytostatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
KW vaccine; infectious disease.

OS Mus sp.

PN WO200256905-A2.

XX 25-JUL-2002.

PF 21-JAN-2002; 2002WO-IB000166.

PR 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Renner WA, Bachmann M, Tissot A, Maurer P, Lechner P, Sebbel P;

PI Piossek C;

XX WPI; 2002-627351/67.

XX Molecular antigen array used in the production of vaccines for infectious
XX diseases.

PS Disclosure; Page 438; 441pp; English.

XX This invention relates to a novel ordered and repetitive antigen array
CC used in the production of vaccines for infectious diseases. The invention
CC also discloses a composition comprising a non-natural molecular scaffold
CC comprising a core particle selected from a core particle of a non-natural
CC origin and a core particle of natural origin and an organiser comprising
CC at least one first attachment site, where the organiser is connected to
CC the core particle by at least one covalent bond. Also disclosed is an
CC antigen or antigenic determinant with at least one second attachment

CC site, where the antigen or antigenic determinant is amyloid beta peptide
CC (Abeta1-42) or its fragment and where the second attachment site is
CC selected from an attachment site not naturally occurring with the antigen
CC or antigenic determinant and an attachment site naturally occurring with
CC the antigen or antigenic determinant, where the second attachment site is
CC capable of association through at least one non-peptide bond to the first
CC attachment site and where the antigen or antigenic determinant and the
CC scaffold interact through the association to form an ordered and
CC repetitive antigen array. The invention also comprises a coat protein
CC capable of forming a capsid which comprises mutant beta coat proteins
CC having an amino acid sequence selected from five amino acid sequences
CC fully defined in the specification. The compounds of the invention may
CC have antimicrobial, antiallergic, immunomodulatory, cytostatic,
CC antiviral, antidiabetic, or hypoglycaemic activities and may be used in
CC immunisation and as a vaccine. The present sequence represents a protein
CC sequence used to create the compositions of the invention

SQ Sequence 124 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 124;

Best Local Similarity 93.3%; Pred. No. 0.013; Mismatches 0; Indels 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
Db 59 CWNITIKQHVTITTT 73

RESULT 13

ABG80652
ID ABG80652 standard; protein; 124 AA.

XX AC ABG80652;

XX 29-NOV-2002 (first entry)

XX Mouse truncated prion protein with C terminal cysteine containing linker.

XX Molecular antigen array; vaccine; antigen; antimicrobial; mutant;
KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutagen;
KW graft versus host disease; IgE-mediated allergic reaction; anaphylaxis;
KW adult respiratory distress syndrome; ARDS; Crohn's disease;
KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;
KW Grave's disease; systemic lupus erythematosus; osteoporosis;
KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;
KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;
KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;
KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;
KW enterokinase; cysteine-containing linker.

OS Mus sp.

OS Synthetic.

XX WO200256907-A2.

XX 25-JUL-2002.

XX 21-JAN-2002; 2002WO-IB000168.

PR 19-JAN-2001; 2001US-0262379P.

PR 04-MAY-2001; 2001US-0288549P.

PR 05-OCT-2001; 2001US-0326998P.

PR 07-NOV-2001; 2001US-0331045P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX (MAUR/) MAURER P.

XX (LECH/) LECHNER P.

XX (ORTM/) ORTMANN R.

XX (LUEO/) LUEOEND R.

XX (STAU/) STAUFENBIEL M.

XX (FREY/) FREY P.

PI Maurer P, Lechner F, Ortmann R, Luecend R, Staufenbiel M, Frey P;
 PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;
 DR WPI; 2002-636514/68.

XX Molecular antigen array used in the production of vaccines for infectious
 XX diseases.

PT Example 7; Page 415; 418pp; English.

XX The invention relates to a composition comprising: (a) a non-natural
 CC molecular scaffold comprising: (i) a core particle selected from: (1) a
 CC core particle of a non-natural origin; and (2) a core particle of natural
 CC origin; and (ii) an organiser comprising at least one first attachment
 CC site, where the organiser is connected to the core particle by at least
 CC one covalent bond; (b) an antigen or antigenic determinant with at least
 CC one second attachment site, where the antigen or antigenic determinant is
 CC anyloid beta peptide (A β 1-42) or its fragment, and where the second
 CC attachment site is selected from: (i) an attachment site not naturally
 CC occurring with the antigen or antigenic determinant; and (ii) an
 CC attachment site naturally occurring with the antigen or antigenic
 CC determinant, where the second attachment site is capable of association
 CC through at least one non-peptide bond to the first attachment site; and
 CC where the antigen or antigenic determinant and the scaffold interact
 CC through the association to form an ordered and repetitive antigen array.
 CC Also included is a process for producing a non-naturally occurring
 CC ordered and repetitive antigen array. The composition is used in
 CC immunisation and as a vaccine for diseases such as influenza, graft
 CC versus host disease, IGE-mediated allergic reactions, anaphylaxis, adult
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia
 CC gravis, immunoproliferative disease lymphadenopathy,
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,
 CC osteoporosis and infectious diseases. The present sequence is a modified
 CC antigen for use in the array of the invention. The antigen is modified to
 CC possess a cleavage site (enterokinase or factor xa) and a Cysteine-
 CC containing N- or C-terminal linker peptide which serves as the attachment
 CC point to a virus like particle or bacterial protein (the scaffold
 CC protein)

XX Sequence 124 AA;

Query Match 85.2%; Score 60.5; DB 5; Length 124;
 Best Local Similarity 93.3%; Pred. No. 0.013;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

OY 1 CVNITIKQ-TVTTTT 14
 ||||| |||||
 Db 59 CVNITIKQHTVTTTT 73

RESULT 14

ID ADD24200 standard; protein; 124 AA.

XX ADD24200;

XX 15-JAN-2004 (first entry)

DE mPrPt-EK-Fc* cleaved protein sequence.

XX vaccine composition; virus-like particle; core particle;
 KW first attachment site; antigen; antigenic determinant; prion protein;
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;
 KW Creutzfeldt-Jakob Disease; prion; mPrPt-EK-Fc*.

XX Unidentified.

OS prion.

XX WO2003059386-A2.

XX

PD 24-JUL-2003.

XX 17-JAN-2003; 2003WO-EP000460.

XX 18-JAN-2002; 2002US-00050902.

PR 21-JAN-2002; 2002WO-IB000166.

PR 08-JUL-2002; 2002US-0393725P.

PR 18-JUL-2002; 2002US-0396590P.

XX (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX Bachmann M, Maurer P, Pelliccioli E, Renner WA;

XX WPI; 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g.

PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-

PT phage), and at least one prion protein or peptide bound to the virus-like

PT particle.

XX Example 13; SEQ ID NO 93; 246pp; English.

XX This invention relates to a novel vaccine composition comprising a virus-
 CC like or a core particle with at least one first attachment site and at
 CC least one antigen or antigenic determinant that is a prion protein (PrP)
 CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
 CC being bound to the virus-like or core particle. The vaccine of the
 CC invention may have neuroprotective or antiinflammatory activity. The
 CC composition is useful as a medicament or in manufacturing a medicament
 CC for the treatment or prevention of prion diseases. The prion diseases may
 CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
 CC disease. The present sequence is the amino acid sequence of the cleaved
 CC protein translated from a mouse prion protein (PrP) vector (mPrPt-EK-Fc*)
 CC which was used during the exemplification of the invention.

XX Sequence 124 AA;

Query Match 85.2%; Score 60.5; DB 7; Length 124;
 Best Local Similarity 93.3%; Pred. No. 0.013;
 Matches 14; Conservative 0; Mismatches 1; Gaps 1;

OY 1 CVNITIKQ-TVTTTT 14
 ||||| |||||
 Db 59 CVNITIKQHTVTTTT 73

RESULT 15

ID AAW17686 standard; peptide; 142 AA.

XX AAW17686;

DT 14-JAN-1998 (first entry)

DE Prion protein peptide Hu 90-231.

XX Prion protein; PrP; alpha helical domain; screening; inhibition; binding;
 KW scrapie; bovine spongiform encephalopathy; BSE; CJD;
 KW Creutzfeldt-Jakob disease; kuru; GSS; FRI; fatal familial insomnia;
 KW Gerstmann-Straussler-Scheinker disease; hamster; human.

OS Homo sapiens.

XX WO9716728-A1.

XX 09-MAY-1997.

XX 28-OCT-1996; 96WO-US017462.

XX 02-NOV-1995; 95US-00556823.

XX (REGC) UNIV CALIFORNIA.

XX Prusiner SB, Kaneko K, Cohen FE;
PI WPI; 1997-272248/24.
XX
XX Prion proteins (PrPs) having at least one alpha-helical domain - used in
PT assays for screening compounds able to inhibit or decrease the binding of
PT PrP peptide(s) to cellular prion proteins or peptide(s).
XX
XX Claim 11; Page 7-38; 50pp; English.
XX
XX The present sequence represents a prion protein (PrP) peptide. PrP has an
CC ability to induce a conformational change in cellular prion protein (PrP-
CC c). Methods, for screening compounds which inhibit the binding of PrP-c
CC to a PrP peptide, are used for screening for drugs that may be useful in
CC the treatment prion-related disease e.g. scrapie, BSE (bovine spongiform
CC encephalopathy), CJD (Creutzfeldt-Jakob disease), kuru, GSS (Gerstmann-
CC Strausler-Scheinker disease) and FFI (fatal familial insomnia)
XX
SQ Sequence 142 AA;
Query Match 85.2%; Score 60.5; DB 2; Length 142;
Best Local Similarity 93.3%; Pred. No. 0.015;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
QY 1 CVNITIKQ-TVTTTT 14
| | | | | | | | | | | | | | | |
Db 90 CVNITIKQHTVTTTT 104

Search completed: October 26, 2004, 15:42:11
Job time : 36.4167 secs

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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:39:39 ; Search time 34.4167 Seconds
(without alignments)
131.698 Million cell updates/sec

Title: US-09-603-832-6

Perfect score: 71

Sequence: 1 CWNITIKQTVTTT 14

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Searched: 1364641 seqs, 323758627 residues

Total number of hits satisfying chosen parameters: 1364641

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database : Published Applications AA.*
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2: /cgn2_6/ptodata/2/pubpaa/FC1_NEW_PUB.pep.*
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8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep.*
9: /cgn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep.*
10: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep.*
11: /cgn2_6/ptodata/2/pubpaa/US09C_PUBCOMB.pep.*
12: /cgn2_6/ptodata/2/pubpaa/US09_NEW_PUB.pep.*
13: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep.*
14: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep.*
15: /cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep.*
16: /cgn2_6/ptodata/2/pubpaa/US10D_PUBCOMB.pep.*
17: /cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.pep.*
18: /cgn2_6/ptodata/2/pubpaa/US11_NEW_PUB.pep.*
19: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep.*
20: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	60.5	85.2	22	9	US-09-988-842-8
2	60.5	85.2	23	9	US-09-988-842-10
3	60.5	85.2	23	9	US-09-988-842-11
4	60.5	85.2	23	15	US-10-614-370-3
5	60.5	85.2	33	14	US-10-116-061-36
6	60.5	85.2	117	14	US-10-050-302-348
7	60.5	85.2	117	14	US-10-050-898-348
8	60.5	85.2	117	14	US-10-346-190-89
9	60.5	85.2	124	14	US-10-050-302-324
10	60.5	85.2	124	14	US-10-050-898-324
11	60.5	85.2	124	14	US-10-346-190-93
12	60.5	85.2	141	16	US-10-612-356A-1
13	60.5	85.2	162	9	US-09-745-003-10

14	60.5	85.2	163	9	US-09-745-003-11	Sequence 11, Appl
15	60.5	85.2	163	14	US-10-104-047-2013	Sequence 2013, Ap
16	60.5	85.2	164	9	US-09-745-003-12	Sequence 12, Appl
17	60.5	85.2	194	14	US-10-023-386-11981	Sequence 11981, A
18	60.5	85.2	200	16	US-10-470-848-10	Sequence 10, Appl
19	60.5	85.2	208	9	US-09-823-494-18	Sequence 18, Appl
20	60.5	85.2	208	16	US-10-470-848-3	Sequence 3, Appl
21	60.5	85.2	208	17	US-10-745-393-1	Sequence 1, Appl
22	60.5	85.2	209	16	US-10-470-848-6	Sequence 6, Appl
23	60.5	85.2	209	16	US-10-470-848-7	Sequence 7, Appl
24	60.5	85.2	225	14	US-10-301-488A-25	Sequence 25, Appl
25	60.5	85.2	225	15	US-10-301-448-25	Sequence 25, Appl
26	60.5	85.2	226	14	US-10-205-194-121	Sequence 121, App
27	60.5	85.2	245	14	US-10-304-630-5	Sequence 5, Appl
28	60.5	85.2	245	14	US-10-304-630-15	Sequence 15, Appl
29	60.5	85.2	252	14	US-10-304-630-13	Sequence 13, Appl
30	60.5	85.2	252	14	US-10-304-630-17	Sequence 17, Appl
31	60.5	85.2	253	9	US-09-823-494-20	Sequence 20, Appl
32	60.5	85.2	253	9	US-09-904-987-3	Sequence 3, Appl
33	60.5	85.2	253	9	US-09-919-172-57	Sequence 57, Appl
34	60.5	85.2	253	9	US-09-943-906-2	Sequence 2, Appl
35	60.5	85.2	253	14	US-10-304-630-1	Sequence 1, Appl
36	60.5	85.2	253	14	US-10-304-630-2	Sequence 2, Appl
37	60.5	85.2	253	14	US-10-304-630-3	Sequence 3, Appl
38	60.5	85.2	253	14	US-10-304-630-4	Sequence 4, Appl
39	60.5	85.2	253	14	US-10-304-630-7	Sequence 7, Appl
40	60.5	85.2	253	14	US-10-304-630-8	Sequence 8, Appl
41	60.5	85.2	253	14	US-10-304-630-9	Sequence 9, Appl
42	60.5	85.2	253	14	US-10-304-630-10	Sequence 10, Appl
43	60.5	85.2	253	14	US-10-304-630-11	Sequence 11, Appl
44	60.5	85.2	253	14	US-10-304-630-12	Sequence 12, Appl
45	60.5	85.2	253	14	US-10-304-630-14	Sequence 14, Appl

ALIGNMENTS

RESULT 1
US-09-988-842-8
; Sequence 8, Application US/09988842
; Patent No. US20020143105A1
; GENERAL INFORMATION:
; APPLICANT: Johansson, Jan
; TITLE OF INVENTION: DISCORDANT HELIX STABILIZATION FOR PREVENTION
; FILE REFERENCE: 12125-002001
; CURRENT APPLICATION NUMBER: US/09/988,842
; PRIOR FILING DATE: 2001-11-19
; PRIOR APPLICATION NUMBER: US 60/251,662
; PRIOR FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: US 60/253,695
; PRIOR FILING DATE: 2000-11-20
; NUMBER OF SEQ ID NOS: 26
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; TYPE: PRT
; LENGTH: 22
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetically generated peptide
US-09-988-842-8

Query Match 85.2%; Score 60.5; DB 9; Length 22;
Best Local Similarity 93.3%; Pred. No. 0.0025;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Oy 1 CWNITIKQ-TVTTT 14
Db 7 CWNITIKQTVTTT 21

RESULT 2
US-09-988-842-10

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; Sequence 10, Application US/09988842
; Patent No. US20020143105A1
; GENERAL INFORMATION:
; APPLICANT: Johansson, Jan
; TITLE OF INVENTION: DISCORDANT HELIX STABILIZATION FOR PREVENTION
; FILE REFERENCE: 12125-002001
; CURRENT APPLICATION NUMBER: US/09/988,842
; CURRENT FILING DATE: 2001-11-19
; PRIOR APPLICATION NUMBER: US 60/251,662
; PRIOR FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: US 60/253,695
; PRIOR FILING DATE: 2000-11-20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetically generated peptide
US-09-988-842-10

Query Match      85.2%; Score 60.5; DB 9; Length 23;
Best Local Similarity 93.3%; Pred. No. 0.0026;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14
   ||||| |||||
Db 8 CVNITIKQHTVTTTT 22

RESULT 3
US-09-988-842-11
; Sequence 11, Application US/09988842
; Patent No. US20020143105A1
; GENERAL INFORMATION:
; APPLICANT: Johanson, Jan
; TITLE OF INVENTION: DISCORDANT HELIX STABILIZATION FOR PREVENTION
; FILE REFERENCE: 12125-002001
; CURRENT APPLICATION NUMBER: US/09/988,842
; CURRENT FILING DATE: 2001-11-19
; PRIOR APPLICATION NUMBER: US 60/251,662
; PRIOR FILING DATE: 2000-12-06
; PRIOR APPLICATION NUMBER: US 60/253,695
; PRIOR FILING DATE: 2000-11-20
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 11
; LENGTH: 23
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetically generated peptide
US-09-988-842-11

Query Match      85.2%; Score 60.5; DB 9; Length 23;
Best Local Similarity 93.3%; Pred. No. 0.0026;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14
   ||||| |||||
Db 8 CVNITIKQHTVTTTT 22

RESULT 4
US-10-614-370-3
; Sequence 3, Application US/10614370
; Publication No. US2004009147A1
; GENERAL INFORMATION:
; APPLICANT: Raven, Neil David Hammond
; APPLICANT: Sutton, John Mark

```

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; TITLE OF INVENTION: Degradation and Detection of TSE Infectivity
; FILE REFERENCE: 1581.0990001
; CURRENT APPLICATION NUMBER: US/10/614,370
; CURRENT FILING DATE: 2003-07-08
; PRIOR APPLICATION NUMBER: GB 0104696.0
; PRIOR FILING DATE: 2001-02-26
; PRIOR APPLICATION NUMBER: GB 0100420.9
; PRIOR FILING DATE: 2001-01-08
; PRIOR APPLICATION NUMBER: GB 0216146.1
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: PCT/GB02/00052
; PRIOR FILING DATE: 2002-01-08
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 3
; LENGTH: 25
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Synthetic
US-10-614-370-3

Query Match      85.2%; Score 60.5; DB 15; Length 25;
Best Local Similarity 93.3%; Pred. No. 0.0029;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CVNITIKQ-TVTTTT 14
   ||||| |||||
Db 1 CVNITIKQHTVTTTT 15

RESULT 5
US-10-116-061-36
; Sequence 36, Application US/10116061
; Publication No. US20030199013A1
; GENERAL INFORMATION:
; APPLICANT: Fiebleigh, Robert V.
; APPLICANT: Robson, Barry
; APPLICANT: Moser, Roger P.
; TITLE OF INVENTION: Fragments of Prion Proteins
; NUMBER OF SEQUENCES: 67
; CORRESPONDENCE ADDRESS:
; ADDRESSER: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/10/116,061
; FILING DATE: 05-Apr-2002
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US/08/244,701B
; FILING DATE: 02-JUN-1994
; ATTORNEY/AGENT INFORMATION:
; NAME: Fanucci, Allan A.
; REGISTRATION NUMBER: 30,256
; REFERENCE/DOCKET NUMBER: 8080-007
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 16:
; SEQUENCE CHARACTERISTICS:
; TYPE: amino acid
; LENGTH: 33 amino acids
; STRANDEDNESS: single

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;
; TOPOLOGY: linear
; MOLECULE TYPE: peptide
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 1
; OTHER INFORMATION: /label= X
; /note= "X may be absent or present independently
; of Y and denotes one or amino acid(s)"
; FEATURE:
; NAME/KEY: Modified-site
; LOCATION: 33
; OTHER INFORMATION: /label= Y
; /note= "Y may be absent or present independently
; of X and denotes one or more amino acid(s)"
; SEQUENCE DESCRIPTION: SEQ ID NO: 36:
US-10-116-861-36

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Query Match      85.2%; Score 60.5; DB 14; Length 33;
Best Local Similarity 93.3%; Pred. No. 0.0039;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

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QY      1 CWNITIKQ-TVTTTT 14
         ||||| |||||
DB      7 CWNITIKQHTVTTTT 21

```

```

RESULT 6
US-10-050-902-348
; Sequence 348, Application US/10050902
; Publication No. US20030175290A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Tisbot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Sebbel, Peter
; APPLICANT: Piossek, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190004
; CURRENT APPLICATION NUMBER: US 10/050,902
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 348
; LENGTH: 117
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Modified human prion protein fragment
US-10-050-902-348

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Query Match      85.2%; Score 60.5; DB 14; Length 117;
Best Local Similarity 93.3%; Pred. No. 0.016;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

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QY      1 CWNITIKQ-TVTTTT 14
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DB      58 CWNITIKQHTVTTTT 72

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RESULT 7
US-10-050-898-348
; Sequence 348, Application US/10050898
; Publication No. US20030175711A1

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; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tisbot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Sebbel, Peter
; APPLICANT: Piossek, Christine
; APPLICANT: Ortman, Rainer
; APPLICANT: Luond, Rainer
; APPLICANT: Staufenbiel, Matthias
; APPLICANT: Frey, Peter
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190005
; CURRENT APPLICATION NUMBER: US 10/050,898
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 348
; LENGTH: 117
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; OTHER INFORMATION: Modified human prion protein fragment
US-10-050-898-348

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Query Match      85.2%; Score 60.5; DB 14; Length 117;
Best Local Similarity 93.3%; Pred. No. 0.016;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

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QY      1 CWNITIKQ-TVTTTT 14
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DB      58 CWNITIKQHTVTTTT 72

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RESULT 8
US-10-346-190-89
; Sequence 89, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pellicoli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US 10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 89
; LENGTH: 117
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:

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; OTHER INFORMATION: Modified Human Prion Protein Fragment
US-10-346-190-89

Query Match      85.2%; Score 60.5; DB 14; Length 117;
Best Local Similarity 93.3%; Pred. No. 0.016;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TVTTTT 14
Db 58 CVNITIKQHTVTTTT 72

RESULT 9
US-10-050-902-324
; Sequence 324, Application US/10050902
; Publication No. US20030175290A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Sebbel, Peter
; APPLICANT: Plossek, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190004
; CURRENT APPLICATION NUMBER: US/10/050,902
; CURRENT FILING DATE: 2002-01-18
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 324
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Protein sequence of mPrPt
US-10-050-898-324

Query Match      85.2%; Score 60.5; DB 14; Length 124;
Best Local Similarity 93.3%; Pred. No. 0.017;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TVTTTT 14
Db 59 CVNITIKQHTVTTTT 73

RESULT 11
US-10-346-190-93
; Sequence 93, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Erica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20
; PRIOR APPLICATION NUMBER: PCT/IB02/00166
; PRIOR FILING DATE: 2002-01-21
; PRIOR APPLICATION NUMBER: 10/050,902
; PRIOR FILING DATE: 2002-01-18
; NUMBER OF SEQ ID NOS: 164
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 93
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: mPrPt
US-10-346-190-93

Query Match      85.2%; Score 60.5; DB 14; Length 124;
Best Local Similarity 93.3%; Pred. No. 0.017;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TVTTTT 14
Db 59 CVNITIKQHTVTTTT 73

RESULT 12
US-10-612-356A-1

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; Sequence 1, Application US/10612356A
 ; Publication No. US20040143093A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Zahn, Ralph
 ; TITLE OF INVENTION: Method for inducing a conformational transition in proteins, such
 ; as pathogenic/infectious proteins, and their use
 ; FILE REFERENCE: PUS-E005-111
 ; CURRENT APPLICATION NUMBER: US/10/612,356A
 ; CURRENT FILING DATE: 2003-07-02
 ; NUMBER OF SEQ ID NOS: 1
 ; SOFTWARE: PatentIn version 3.2
 ; SEQ ID NO 1
 ; LENGTH: 141
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-10-612-356A-1

Query Match 85.2%; Score 60.5; DB 16; Length 141;
 Best Local Similarity 93.3%; Pred. No. 0.019; 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Mismatches 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
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 DB 90 CWNIIKQHTVTTTT 104

RESULT 13

US-09-745-003-10
 ; Sequence 10, Application US/09745003
 ; Patent No. US20020042122A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Bazan, Fernando J
 ; TITLE OF INVENTION: Human Proteins; Related Reagents
 ; FILE REFERENCE: PrP2
 ; CURRENT APPLICATION NUMBER: US/09/745,003
 ; CURRENT FILING DATE: 2000-12-20
 ; NUMBER OF SEQ ID NOS: 13
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 10
 ; LENGTH: 162
 ; TYPE: PRT
 ; ORGANISM: primate
 ; US-09-745-003-10

Query Match 85.2%; Score 60.5; DB 9; Length 162;
 Best Local Similarity 93.3%; Pred. No. 0.022; 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Mismatches 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
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 DB 88 CWNIIKQHTVTTTT 102

RESULT 14

US-09-745-003-11
 ; Sequence 11, Application US/09745003
 ; Patent No. US20020042122A1
 ; GENERAL INFORMATION:
 ; APPLICANT: Bazan, Fernando J
 ; TITLE OF INVENTION: Human Proteins; Related Reagents
 ; FILE REFERENCE: PrP2
 ; CURRENT APPLICATION NUMBER: US/09/745,003
 ; CURRENT FILING DATE: 2000-12-20
 ; NUMBER OF SEQ ID NOS: 13
 ; SOFTWARE: PatentIn Ver. 2.0
 ; SEQ ID NO 11
 ; LENGTH: 163
 ; TYPE: PRT
 ; ORGANISM: Hamster sp.
 ; US-09-745-003-11

Query Match 85.2%; Score 60.5; DB 9; Length 163;

Best Local Similarity 93.3%; Pred. No. 0.023; 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
 QY 1 CWNITIKQ-TVTTTT 14
 ||||| |||||
 DB 88 CWNITIKQHTVTTTT 102

RESULT 15

US-10-104-047-2013
 ; Sequence 2013, Application US/10104047
 ; Publication No. US20030236392A1
 ; GENERAL INFORMATION:
 ; APPLICANT: HELIX RESEARCH INSTITUTE
 ; TITLE OF INVENTION: No. US20030236392A1 full length cDNA
 ; FILE REFERENCE: H1-A0105
 ; CURRENT APPLICATION NUMBER: US/10/104,047
 ; PRIOR FILING DATE: 2002-03-25
 ; CURRENT FILING DATE: 2002-03-25
 ; PRIOR FILING DATE:
 ; NUMBER OF SEQ ID NOS: 4096
 ; SOFTWARE: PatentIn Ver. 2.1
 ; SEQ ID NO 2013
 ; LENGTH: 163
 ; TYPE: PRT
 ; ORGANISM: Homo sapiens
 ; US-10-104-047-2013

Query Match 85.2%; Score 60.5; DB 14; Length 163;
 Best Local Similarity 93.3%; Pred. No. 0.023; 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
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 DB 89 CWNITIKQHTVTTTT 103

Search completed: October 26, 2004, 15:46:48
 Job time : 35.4167 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:36:59 ; Search time 8.16667 Seconds
(without alignments)
164.943 Million cell updates/sec

Title: US-09-603-832-6
Perfect score: 71
Sequence: 1 CWNITIKQTVTTTT 14

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Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:.*
1: pir1:.*
2: pir2:.*
3: pir3:.*
4: pir4:.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	60.5	85.2	226	2 AS3892	prion-related prot
2	60.5	85.2	232	2 S71041	major prion protei
3	60.5	85.2	239	2 S53633	major prion protei
4	60.5	85.2	241	2 S71048	major prion protei
5	60.5	85.2	241	2 S71056	major prion protei
6	60.5	85.2	245	2 S53627	major prion protei
7	60.5	85.2	245	2 S71045	major prion protei
8	60.5	85.2	252	2 S53634	major prion protei
9	60.5	85.2	252	2 S53631	major prion protei
10	60.5	85.2	253	1 UJH1	major prion protei
11	60.5	85.2	253	2 S53624	major prion protei
12	60.5	85.2	253	2 S53623	major prion protei
13	60.5	85.2	253	2 S53620	major prion protei
14	60.5	85.2	253	2 S53625	major prion protei
15	60.5	85.2	253	2 I84423	major prion protei
16	60.5	85.2	253	2 S71055	major prion protei
17	60.5	85.2	253	2 S53617	major prion protei
18	60.5	85.2	253	2 S53635	major prion protei
19	60.5	85.2	253	2 S53614	major prion protei
20	60.5	85.2	253	2 I77032	major prion protei
21	60.5	85.2	253	2 I61847	major prion protei
22	60.5	85.2	253	2 S53618	major prion protei
23	60.5	85.2	253	2 S53619	major prion protei
24	60.5	85.2	253	2 S53616	major prion protei
25	60.5	85.2	254	1 UJHYIH	major prion PrP-Sc
26	60.5	85.2	254	2 B34759	prion protein - go
27	60.5	85.2	254	2 A34759	prion protein - Ch
28	60.5	85.2	254	2 A23544	major prion protei
29	60.5	85.2	257	2 A23545	major prion PrP27-

ALIGNMENTS

RESULT 1

A53892
Prion-related protein - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C>Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 09-Jul-2004
C:Accession: A53892
R:Liao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.
Lab. Invest. 57, 370-374, 1987
A>Title: Cloning of rat "prion-related protein" cDNA.
A:Reference number: A53892; MUID:88037055; PMID:2889848
A:Accession: A53892
A>Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-226 <LIA>
A:Cross-references: UNIPROT:P13852; GB:M20313; NID:g206391; PIDN:AAA41947.1; PID:g20639
C:Superfamily: major prion protein

Query Match 85.2%; Score 60.5; DB 2; Length 226;
Best Local Similarity 93.3%; Pred. No. 0.0038;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CWNITIKQ-TVTTTT 14
Db 151 CWNITIKQTVTTTT 165

RESULT 2

S71041
major prion protein - black-handed spider monkey (fragment)
C:Species: Ateles geoffroyi (black-handed spider monkey)
C>Date: 27-Oct-1998 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C:Accession: S71041; S53630
R:Schatzli, H.M.
submitted to the EMBL Data Library, April 1994
A:Reference number: S71041
A:Accession: S71041
A:Molecule type: DNA
A:Residues: 1-232 <SCH>
A:Cross-references: UNIPROT:P40246; EMBL:U08309; NID:g474376; PIDN:AAC50097.1; PID:g474
R:Schatzli, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Frusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A>Title: Prion protein gene variation among primates.
A:Reference number: S53614; MUID:95139066; PMID:7837269
A:Accession: S53630
A>Status: nucleic acid sequence not shown
A:Molecule type: DNA
A:Residues: 1-194, 'R', 196-231 <SCW>
A:Cross-references: EMBL:U08309
C:Superfamily: major prion protein
C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 232;

Best Local Similarity 93.3%; Pred. No. 0.0039; 0; Mismatches 0; Indels 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
|||||
Db 163 CWNITIKQHTVTTTT 177

RESULT 3

S53633
major prion protein - douroucouli (fragment)
C/Species: Aotus trivirgatus (douroucouli, night monkey, owl monkey)
C/Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C/Accession: S53633; S71042
R/Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A/Title: Prion protein gene variation among primates.
A/Reference number: S53614; MUID:95139066; PMID:7837269
A/Accession: S53633
A/Status: nucleic acid sequence not shown
A/Molecule type: DNA
A/Residues: 1-239 <SCH>
A/Cross-references: UNIPROT:P40245; EMBL:U08293
R/Schaezel, H.M.
submitted to the EMBL Data Library, April 1994
A/Reference number: S71041
A/Accession: S71042
A/Molecule type: DNA
A/Residues: 1-202, 'E', 204-239 <SCW>
A/Cross-references: EMBL:U08293; NID:g474344; PIDN:AAC50082.1; PID:g474345
C/Superfamily: major prion protein
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 239;
Best Local Similarity 93.3%; Pred. No. 0.0041; 0; Mismatches 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
|||||
Db 171 CWNITIKQHTVTTTT 185

RESULT 4

S71048
major prion protein - Callicebus moloch (fragment)
C/Species: Callicebus moloch
C/Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C/Accession: S71048; S53632
R/Schaezel, H.M.
submitted to the EMBL Data Library, April 1994
A/Reference number: S71041
A/Accession: S71048
A/Molecule type: DNA
A/Residues: 1-241 <SCH>
A/Cross-references: UNIPROT:P40248; EMBL:U08312; NID:g475585; PIDN:AAC50100.1; PID:g4755
R/Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A/Title: Prion protein gene variation among primates.
A/Reference number: S53614; MUID:95139066; PMID:7837269
A/Accession: S53632
A/Status: nucleic acid sequence not shown
A/Molecule type: DNA
A/Residues: 1-203, 'R', 205-240 <SCW>
A/Cross-references: EMBL:U08312
C/Superfamily: major prion protein
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 241;
Best Local Similarity 93.3%; Pred. No. 0.0041; 0; Mismatches 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
|||||

Db 172 CWNITIKQHTVTTTT 186

RESULT 5

S71056
major prion protein - mandrill (fragment)
C/Species: Papio sphinx, Mandrillus sphinx (mandrill)
C/Date: 27-Oct-1996 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
C/Accession: S71056; S53621
R/Schaezel, H.M.
submitted to the EMBL Data Library, April 1994
A/Reference number: S71041
A/Accession: S71056
A/Molecule type: DNA
A/Residues: 1-241 <SCH>
A/Cross-references: UNIPROT:P40255; EMBL:U08303; NID:g474364; PIDN:AAC50091.1; PID:g474364
R/Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A/Title: Prion protein gene variation among primates.
A/Reference number: S53614; MUID:95139066; PMID:7837269
A/Accession: S53621
A/Status: nucleic acid sequence not shown
A/Molecule type: DNA
A/Residues: 1-203, 'R', 205-240 <SCW>
A/Cross-references: EMBL:U08303
C/Superfamily: major prion protein
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 241;
Best Local Similarity 93.3%; Pred. No. 0.0041; 0; Mismatches 0; Indels 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
|||||
Db 172 CWNITIKQHTVTTTT 186

RESULT 6

S53627
major prion protein - green monkey
C/Species: Cercopithecus aethiops (green monkey, grivet)
C/Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
C/Accession: S53627; S71043
R/Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
J. Mol. Biol. 245, 362-374, 1995
A/Title: Prion protein gene variation among primates.
A/Reference number: S53614; MUID:95139066; PMID:7837269
A/Accession: S53627
A/Status: nucleic acid sequence not shown
A/Molecule type: DNA
A/Residues: 1-245 <SCH>
A/Cross-references: UNIPROT:P40250; EMBL:U08291
R/Schaezel, H.M.
submitted to the EMBL Data Library, April 1994
A/Reference number: S71041
A/Accession: S71043
A/Molecule type: DNA
A/Residues: 1-10, 'V', 12-202, 'E', 204-245 <SCW>
A/Cross-references: EMBL:U08291; NID:g474340; PIDN:AAC50080.1; PID:g474341
C/Superfamily: major prion protein
C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 245;
Best Local Similarity 93.3%; Pred. No. 0.0042; 0; Mismatches 0; Indels 1; Gaps 1;
Matches 14; Conservative

QY 1 CWNITIKQ-TVTTTT 14
|||||
Db 171 CWNITIKQHTVTTTT 185

RESULT 7

S71045

major prion protein - Cercopithecus diana
 C:Species: Cercopithecus diana
 C>Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S53628
 R:Schatz, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71045
 A:Molecule type: DNA
 A:Residues: 1-245 <SCH>
 A:Cross-references: UNIPROT:P40250; EMBL:U08292; NID:G474342; PIDN:AAC50081.1; PID:G474342
 R:Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53628
 A:Status: nucleic acid sequence not shown
 A:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 245;
 Best Local Similarity 93.3%; Pred. No. 0.0042; 0; Mismatches 1; Gaps 1;
 Matches 14; Conservative 0; Indels 1; Gaps 1;
 QY 1 CWNITIKQ-TVTTTT 14
 DB 171 CWNITIKQHTVTTT 185

RESULT 8
 S53634
 major prion protein - common marmoset
 C:Species: Callithrix jacchus (common marmoset)
 C>Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S53634; S71047
 R:Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53634
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-252 <SCH>
 A:Cross-references: UNIPROT:P40247; EMBL:U08304
 R:Schatz, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71047
 A:Molecule type: DNA
 A:Residues: 1-209, 'R', 211-252 <SCH>
 A:Cross-references: EMBL:U08304; NID:G474366; PIDN:AAC50092.1; PID:G474367
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 252;
 Best Local Similarity 93.3%; Pred. No. 0.0043; 0; Mismatches 1; Gaps 1;
 Matches 14; Conservative 0; Indels 1; Gaps 1;
 QY 1 CWNITIKQ-TVTTTT 14
 DB 178 CWNITIKQHTVTTT 192

RESULT 9
 S53631
 major prion protein - brown capuchin
 C:Species: Cebus apella (brown capuchin), black-capped capuchin
 C>Date: 28-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S53631; S71044
 R:Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.

J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53631
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-252 <SCH>
 A:Cross-references: UNIPROT:P40249; EMBL:U08295
 R:Schatz, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71044
 A:Molecule type: DNA
 A:Residues: 1-209, 'E', 211-252 <SCW>
 A:Cross-references: EMBL:U08295; NID:G474348; PIDN:AAC50084.1; PID:G474349
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 252;
 Best Local Similarity 93.3%; Pred. No. 0.0043; 0; Mismatches 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Indels 1; Gaps 1;
 QY 1 CWNITIKQ-TVTTTT 14
 DB 178 CWNITIKQHTVTTT 192

RESULT 10
 U08304
 major prion protein precursor - human
 N:Alternate names: 11K amyloid protein; 27-30Kialoglycoprotein; PrP 27-30; PrP 33-35C
 C:Species: Homo sapiens (man)
 C>Date: 25-Oct-1987 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
 C:Accession: A24173; A40372; A05017; S14078; I54597; I58135; I59184; I79633; I79634; I79635; I79636; I79637; I79638; I79639; I79640; I79641; I79642; I79643; I79644; I79645; I79646; I79647; I79648; I79649; I79650; I79651; I79652; I79653; I79654; I79655; I79656; I79657; I79658; I79659; I79660; I79661; I79662; I79663; I79664; I79665; I79666; I79667; I79668; I79669; I79670; I79671; I79672; I79673; I79674; I79675; I79676; I79677; I79678; I79679; I79680; I79681; I79682; I79683; I79684; I79685; I79686; I79687; I79688; I79689; I79690; I79691; I79692; I79693; I79694; I79695; I79696; I79697; I79698; I79699; I79700; I79701; I79702; I79703; I79704; I79705; I79706; I79707; I79708; I79709; I79710; I79711; I79712; I79713; I79714; I79715; I79716; I79717; I79718; I79719; I79720; I79721; I79722; I79723; I79724; I79725; I79726; I79727; I79728; I79729; I79730; I79731; I79732; I79733; I79734; I79735; I79736; I79737; I79738; I79739; I79740; I79741; I79742; I79743; I79744; I79745; I79746; I79747; I79748; I79749; 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Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
 ||||| |||||
 Db 179 CWNITIKQHTVTTTT 193

RESULT 14

S53625

major prion protein - Japanese macaque

C:Species: Macaca fuscata (Japanese macaque)

C>Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004

C:Accession: S53625; S71053

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.

J. Mol. Biol. 245, 362-374, 1995

A:Title: Prion protein gene variation among primates.

A:Reference number: S53614; MUID:95139066; PMID:7837269

A:Accession: S53625

A:Status: nucleic acid sequence not shown

A:Molecule type: DNA

A:Residues: 1-253 <SCH>

A:Cross-references: UNIPROT:P40254; EMBL:U08301

R:Schatzl, H.M.

submitted to the EMBL Data Library, April 1994

A:Reference number: S71041

A:Accession: S71053

A:Molecule type: DNA

A:Residues: 1-210, 'E', 212-253 <SCW>

A:Cross-references: EMBL:U08301; NID:9474360; PIDN:AAC50090.1; PID:9474361

C:Superfamily: major prion protein

C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match

85.2%; Score 60.5; DB 2; Length 253;

Best Local Similarity 93.3%; Pred. No. 0.0043;

Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
 ||||| |||||
 Db 179 CWNITIKQHTVTTTT 193

RESULT 15

I84423

major prion protein precursor - rhesus macaque

C:Species: Macaca mulatta (rhesus macaque)

C>Date: 24-May-1996 #sequence_revision 24-May-1996 #text_change 09-Jul-2004

C:Accession: I84423; S53622; S71054

R:Cervenakova L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Pettrone, K.; Rubenstein, R.; D

Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994

A:Title: Infectious amyloid precursor gene sequences in primates used for experimental

A:Reference number: I38907; MUID:95083661; PMID:7791600

A:Accession: I84423

A:Status: preliminary; translated from GB/EMBL/DBJ

A:Molecule type: DNA

A:Residues: 1-253 <RES>

A:Cross-references: UNIPROT:P40254; EMBL:U15163; NID:9595850; PIDN:AAA68635.1; PID:95958

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.

J. Mol. Biol. 245, 362-374, 1995

A:Title: Prion protein gene variation among primates.

A:Reference number: S53614; MUID:95139066; PMID:7837269

A:Accession: S53622

A:Status: nucleic acid sequence not shown

A:Molecule type: DNA

A:Residues: 1-210, 'R', 212-253 <SCH>

A:Cross-references: EMBL:U08307

R:Schatzl, H.M.

submitted to the EMBL Data Library, April 1994

A:Reference number: S71041

A:Accession: S71054

A:Molecule type: DNA

A:Residues: 1-253 <SCW>

A:Cross-references: EMBL:U08307; NID:9474372; PIDN:AAC50095.1; PID:9474373

C:Superfamily: major prion protein

C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 85.2%; Score 60.5; DB 2; Length 253;

Best Local Similarity 93.3%; Pred. No. 0.0043;

Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
 ||||| |||||
 Db 179 CWNITIKQHTVTTTT 193

Search completed: October 26, 2004, 15:44:43

Job time : 8.16667 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:34:24 ; Search time 33.5417 Seconds
(without alignments)
240.156 Million cell updates/sec

Title: US-09-603-832-6
Perfect score: 71
Sequence: 1 CWNITIKQTVTTTT 14

Scoring table: BLOSUM62

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Uniprot_02.*
1: uniprot_sprot.*
2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	60.5	85.2	145	2 Q78EH4	Q78EH4 mesocricetus
2	60.5	85.2	212	2 Q811W5	Q811W5 cavia porcea
3	60.5	85.2	220	2 Q866W7	Q866W7 ochetona pr
4	60.5	85.2	232	1 PRIO_ATEGE	P40246 ateles geof
5	60.5	85.2	238	1 PRIO_CERAT	Q95145 cercocebus
6	60.5	85.2	238	1 PRIO_THEGE	Q95270 theropithec
7	60.5	85.2	238	2 Q86XR1	Q86XR1 homo sapien
8	60.5	85.2	239	1 PRIO_AOTTR	P40245 aotus trivi
9	60.5	85.2	240	2 Q8VHV4	Q8VHV4 microtus ag
10	60.5	85.2	241	1 PRIO_CALMO	P40248 callicebus
11	60.5	85.2	241	1 PRIO_MANSP	P40255 mandrillus
12	60.5	85.2	243	2 P97895	P97895 mesocricetu
13	60.5	85.2	245	1 PRIO_CERAE	P40250 cercopithec
14	60.5	85.2	246	1 PRIO_CERNE	P61761 cercopithec
15	60.5	85.2	246	1 PRIO_CERNE	P61762 cercopithec
16	60.5	85.2	246	1 PRIO_CERTO	Q95176 cercocebus
17	60.5	85.2	246	1 PRIO_ERYPA	Q95174 erythrocebu
18	60.5	85.2	246	2 AAO83636	AAO83636 homo sapi
19	60.5	85.2	248	2 Q8VHV5	Q8VHV5 clethrionom
20	60.5	85.2	252	1 PRIO_ATEPA	P51446 ateles pani
21	60.5	85.2	252	1 PRIO_CALJA	P40247 callithrix
22	60.5	85.2	252	1 PRIO_CEBAP	P40249 cebus apell
23	60.5	85.2	253	1 PRIO_COLGU	P40251 colobus que
24	60.5	85.2	253	1 PRIO_GORGO	P40252 gorilla gor
25	60.5	85.2	253	1 PRIO_HUMAN	P04156 homo sapien
26	60.5	85.2	253	1 PRIO_HYLLA	P61767 hylobates s
27	60.5	85.2	253	1 PRIO_HYLSA	P61767 hylobates s
28	60.5	85.2	253	1 PRIO_MACFA	P40254 macaca fasc
29	60.5	85.2	253	1 PRIO_PANTR	P61768 pan troglod
30	60.5	85.2	253	1 PRIO_PONPY	P40256 pongo pygma
31	60.5	85.2	253	1 PRIO_PREFR	P40257 preabytis f

32	60.5	85.2	253	2 Q6FGR8	Q6FGR8 homo sapien
33	60.5	85.2	253	2 Q6JL99	Q6JL99 macaca mula
34	60.5	85.2	253	2 Q9Z0T5	Q9Z0T5 meriones un
35	60.5	85.2	253	2 AAS80162	AAS80162 homo sapi
36	60.5	85.2	253	2 AAR12192	AAR12192 macaca mu
37	60.5	85.2	253	2 AAR12192	AAR12192 macaca mu
38	60.5	85.2	254	1 PRIO_CRIGR	Q60506 cricetus
39	60.5	85.2	254	1 PRIO_CRIMI	Q60488 cricetus
40	60.5	85.2	254	1 PRIO_MESAU	P04273 mesocricetu
41	60.5	85.2	254	1 PRIO_MOUSE	P04925 mus musculu
42	60.5	85.2	254	1 PRIO_RAT	P32852 rattus norv
43	60.5	85.2	254	1 PRIO_SIGHI	Q320T3 sigmodon hi
44	60.5	85.2	254	2 Q866W8	Q866W8 tupia tana
45	60.5	85.2	254	2 Q9Z0T4	Q9Z0T4 sigmodon fu
					Q8VHV6 apodemus sy

ALIGNMENTS

RESULT 1
Q78EH4
ID Q78EH4 PRELIMINARY; PRT; 145 AA.
AC Q78EH4
DT 05-JUL-2004 (TREMELrel. 27, Created)
DT 05-JUL-2004 (TREMELrel. 27, Last sequence update)
DT 05-JUL-2004 (TREMELrel. 27, Last annotation update)
DE PRP 27-30 protein (Fragment).
GN Name=Prp 27-30;
OS Mesocricetus auratus (Golden hamster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC Mesocricetus.
OX NCBI_TaxID=10036;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=85176927; PubMed=2859120;
RA Oesch B., Westaway D., Waelchli M., McKinley M.P., Kent S.B.H.,
RA Aebersold R.H., Barry R.A., Tempst P., Teplow D.B., Hood L.E.,
RA Prusiner S.B., Weissmann C.;
RT "A cellular gene encodes scrapie PrP 27-30 protein."
RL Cell 40:735-746(1985).
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; K02234; AAA37093.1; -.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
FT CHAIN
FT NON_TER 145 145
FT POTENTIAL
SQ SEQUENCE 145 AA; 16500 MW; 10384CD7B8FAC9E2 CRC64;

Query Match 85.2%; Score 60.5; DB 2; Length 145;
Best Local Similarity 93.3%; Pred No. 0.008; 0; Mismatches 1; Gaps 1;
Matches 14; Conservative 0;

QY 1 CWNITIKQ-TVTTTT 14
DB 90 CWNITIKQTVTTTT 104

RESULT 2
Q811W5
ID Q811W5 PRELIMINARY; PRT; 212 AA.
AC Q811W5
DT 01-JUN-2003 (TREMELrel. 24, Created)
DT 01-JUN-2003 (TREMELrel. 24, Last sequence update)
DT 01-MAR-2004 (TREMELrel. 26, Last annotation update)
DE Prion protein (Fragment).
GN Name=PRNP;
OS Cavia porcellus (Guinea pig).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

RESULT 5
 PRIO_CERAT STANDARD; PRT; 238 AA.
 AC Q95145; Q95200;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
 GN Name=PRNP;
 OS Cercocebus atterimus, and
 OS Macaca sylvanus (Barbary ape).
 OC Eukaryota; Metazoa; Chordata;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
 OC Cercopithecinae; Cercocebus.
 OX NCBI_TaxID=36222, 9546;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA van der Kuyt A.C., Dekker J.T., Goudsmit J.;
 RT "Evidence for an increased substitution rate of the hominoid prion
 protein gene during the period of brain expansion."
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "rods".
 CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -1- DISEASE: PrP is found in high quantity in the brain of humans and
 CC animals infected with the degenerative neurological diseases kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -1- SIMILARITY: Belongs to the prion family.
 CC
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 CC
 CC EMBL: U75384; AAB50623.1; -;
 CC HSSP: P23907; 1G04.
 CC InterPro: IPR000817; Prion.
 CC Pfam: PF00377; Prion; 1.
 CC Pfam: PF03991; Prion; 1.
 CC PRINTS: PR00341; PRION.
 CC PROSITE: PS00291; PRION 1; 1.
 CC PROSITE: PS00706; PRION_2; 1.
 CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
 FT NON_TER 1 15 By similarity.
 FT SIGNAL <1 15 Major prion protein.
 FT CHAIN 16 215 Removed in mature form (By similarity).
 FT PROPEP 216 238 GPI-anchor amidated serine (By
 FT LIPID 215 215 similarity).
 FT DISULFID 164 199 By similarity.
 FT CARBOHYD 166 166 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 182 182 N-linked (GlcNAc...) (Potential).
 FT DOMAIN 44 76 4 X 8 AA tandem repeats of P-H-G-G-W-G-
 FT REPEAT 44 52 Q.
 FT REPEAT 53 60 2.
 FT REPEAT 61 68 3.
 FT REPEAT 69 76 4.
 FT REPEAT 238 238
 SQ SEQUENCE 238 AA; 26123 MW; 5F59A3EBC3E3531B CRC64;
 Query Match 85.2%; Score 60.5; DB 1; Length 238;
 Best Local Similarity 93.3%; Pred. No. 0.013; 0; Indels 1; Gaps 1;
 Matches 14; Conservative 0; Mismatches 0;

QY 1 CUNITIKO-TVTTTTT 14
 DB 164 CUNITIKQHTVTTTT 178
 RESULT 6
 PRIO_THEGE STANDARD; PRT; 238 AA.
 AC Q95270;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
 GN Name=PRNP; Synonyms=PRP;
 OS Theropithecus gelada (Gelada baboon).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
 OC Cercopithecinae; Theropithecus.
 OX NCBI_TaxID=9546;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA van der Kuyt A.C., Dekker J.T., Goudsmit J.;
 RT "Evidence for an increased substitution rate of the hominoid prion
 protein gene during the period of brain expansion."
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
 CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "rods".
 CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -1- DISEASE: PrP is found in high quantity in the brain of humans and
 CC animals infected with the degenerative neurological diseases kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -1- SIMILARITY: Belongs to the prion family.
 CC
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 CC
 CC EMBL: U75383; AAB50630.1; -;
 CC HSSP: P23907; 1G04.
 CC InterPro: IPR000817; Prion.
 CC Pfam: PF00377; Prion; 1.
 CC Pfam: PF03991; Prion; 1.
 CC PRINTS: PR00341; PRION.
 CC PROSITE: PS00291; PRION 1; 1.
 CC PROSITE: PS00706; PRION_2; 1.
 CC Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
 FT NON_TER 1 15 By similarity.
 FT SIGNAL <1 15 Major prion protein.
 FT CHAIN 16 215 Removed in mature form (By similarity).
 FT PROPEP 216 >238 By similarity.
 FT DISULFID 164 199 GPI-anchor amidated serine (By
 FT LIPID 215 215 similarity).
 FT CARBOHYD 166 166 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 182 182 N-linked (GlcNAc...) (Potential).
 FT DOMAIN 44 83 4 X 8 AA tandem repeats of P-H-G-G-W-G-
 FT REPEAT 44 52 Q.
 FT REPEAT 53 60 2.
 FT REPEAT 61 68 3.
 FT REPEAT 69 76 4.
 FT REPEAT 238 238
 SQ SEQUENCE 238 AA; 26104 MW; 5F59BFF602243EDB CRC64;

Query Match 85.2%; Score 60.5; DB 1; Length 238;
Best Local Similarity 93.3%; Pred. No. 0.013; 0; Indels 1; Gaps 1;
Matches 14; Conservative 0; Mismatches 1; Gaps 1;

Qy 1 CVNITIKQ-TVTTTT 14
Db 164 CVNITIKQHTVTTTT 178

RESULT 7
ID Q86XR1 PRELIMINARY; PRT; 238 AA.
AC Q86XR1;
DT 01-JUN-2003 (TrEMBLrel. 24, Created)
DT 01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
DE Prion protein (Fragment).
GN Name=PRNP;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Homiidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Jeong B.H., Lee Y.J., Lee K.H., Kim Y.S.;
RL Submitted (JAN-2003) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; AY219882; RA083635.1; -.
DR InterPro; IPR000817; Prion.
DR Pfam; PF03981; Prion; octapep; 5.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
FT NON_TER 1
FT NON_TER 238
SQ SEQUENCE 238 AA; 26108 MW; EC9FA42623F3BBAE CRC64;

Query Match 85.2%; Score 60.5; DB 2; Length 238;
Best Local Similarity 93.3%; Pred. No. 0.013; 0; Indels 1; Gaps 1;
Matches 14; Conservative 0; Mismatches 5; Gaps 1;

Qy 1 CVNITIKQ-TVTTTT 14
Db 164 CVNITIKQHTVTTTT 178

RESULT 8
ID PRIO_AOTTR STANDARD; PRT; 239 AA.
AC P40245;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Aotus trivirgatus (Night monkey) (Douroucoulis).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Aotinae; Aotus.
OX NCBI_TaxID=9505;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE-95139066; PubMed-7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.B., Prusiner S.B.;
RT Prion protein gene variation among primates.;
RL J. Mol. Biol. 245:362-374(1995).

CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rod" units. PrP is found in high quantity in the brain of humans and
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and

CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
CC
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CC or send an email to license@sib-sib.ch).

CC EMBL; U08293; AAC50082.1; -.
DR PIR; S53633; S53633.
DR HSP; P23907; IG04.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion octapep; 6.
DR PRINTS; PR00341; PRION.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
KW Signal.
FT NON_TER 1
FT SIGNAL <1 15
FT CHAIN 16 222
FT PROPEP 223 >239
FT DISULFID 171 206
FT LIPID 222 222
FT CARBOHYD 173 173
FT CARBOHYD 189 189
FT DOMAIN 44 83
FT REPEAT 44 51
FT REPEAT 52 59
FT REPEAT 60 67
FT REPEAT 68 75
FT REPEAT 76 83
FT NON_TER 239 239
SQ SEQUENCE 239 AA; 26246 MW; 2EFB7E354B7024A CRC64;

Query Match 85.2%; Score 60.5; DB 1; Length 239;
Best Local Similarity 93.3%; Pred. No. 0.013; 0; Indels 1; Gaps 1;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

Qy 1 CVNITIKQ-TVTTTT 14
Db 171 CVNITIKQHTVTTTT 185

RESULT 9
ID Q8HVH4 PRELIMINARY; PRT; 240 AA.
AC Q8HVH4;
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=Prp;
OS Microtus agrestis (Short-tailed field vole).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Arvicolinae;
OC Microtus.
OX NCBI_TaxID=29092;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'omo G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA Di Garro G., Kretschmar H.A., Wolfer D.P., Lipp H.P.;
RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.

```

DR EMBL; AF367625; AAL57232.1; -.
DR InterPro; IPR000817; Prion.
DR Pfam; PF03977; Prion; 1.
DR Pfam; PF03991; Prion_octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
DR Prion.
KW Prion.
FT NON_TER 1 1
FT NON_TER 240 240
FT SEQUENCE 240 AA; 26308 MW; BCA4EDD3F5F76693 CRC64;

Query Match 85.2%; Score 60.5; DB 2; Length 240;
Best Local Similarity 93.3%; Pred. No. 0.013;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
| | | | | | | | | |
DB 171 CWNITIKQHTVTTTT 185

RESULT 10
PRIO CALMO STANDARD; PRT; 241 AA.
AC P40248;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Callicebus moloch (Dusky titi).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Platyrrhini; Cebidae; Callicebinae;
OC Callicebus.
OX NCBI_TaxID=9523;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=95139066; PubMed=7837269;
RX Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rds".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.
CC
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CC
CC EMBL; U08312; AAC50100.1; -.
CC PIR; S71048; S71048.
CC HSSP; P23907; 1G04.
CC InterPro; IPR000817; Prion.
CC Pfam; PF03977; Prion; 1.
CC Pfam; PF03991; Prion_octapep; 6.
CC PRINTS; PR00341; PRION.
CC PROSITE; PS00291; PRION_1; 1.
CC PROSITE; PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
Signal.

FT NON_TER 1 1
FT SIGNAL <1 15
FT CHAIN 16 223
FT PROPEP 224 >241
FT DISULFID 172 207
FT LIPID 223 223
FT CARBOHYD 174 174
FT CARBOHYD 190 190
FT DOMAIN 44 84
FT REPEAT 44 52
FT REPEAT 53 60
FT REPEAT 61 68
FT REPEAT 69 76
FT REPEAT 77 84
FT NON_TER 241 241
FT SEQUENCE 241 AA; 26373 MW; C6D2013EE7CAEC93 CRC64;

Query Match 85.2%; Score 60.5; DB 1; Length 241;
Best Local Similarity 93.3%; Pred. No. 0.013;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
| | | | | | | | | |
DB 172 CWNITIKQHTVTTTT 186

RESULT 11
PRIO MANSP STANDARD; PRT; 241 AA.
AC P40255;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PRNP;
OS Mandrillus sphinx (Mandrill) (Papio sphinx).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecinae; Mandrillus.
OX NCBI_TaxID=9561;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=95139066; PubMed=7837269;
RX Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "rds".
CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -!- SIMILARITY: Belongs to the prion family.
CC
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CC
CC EMBL; U08303; AAC50091.1; -.
CC PIR; S71056; S71056.
CC HSSP; P23907; 1G04.
CC InterPro; IPR000817; Prion.
CC Pfam; PF03977; Prion; 1.

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DR Pfam: PF03991; Prion_octapep; 6.
DR PRINTS; PR00341; PRION.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT SIGNAL 1
FT CHAIN <1 15 By similarity.
FT CHAIN 16 223 Major prion protein.
FT PROPEP 224 >241 Removed in mature form (By similarity).
FT LIPID 223 GPI-anchor amidated serine (By similarity).
FT DISULFID 172 207 By similarity.
FT CARBOHYD 174 174 N-linked (GlcNAc...) (potential).
FT CARBOHYD 190 190 N-linked (GlcNAc...) (potential).
FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-Q.
FT REPEAT 44 52 1.
FT REPEAT 53 60 2.
FT REPEAT 61 68 3.
FT REPEAT 69 76 4.
FT REPEAT 77 84 5.
FT NON_TER 241 241
SQ SEQUENCE 241 AA; 26398 MW; E539D84E2B59DE CRC64;

Query Match 85.2%; Score 60.5; DB 1; Length 241;
Best Local Similarity 93.3%; Pred. No. 0.013; 0; Mismatches 1; Gaps 1;
Matches 14; Conservative 0;

Qy 1 CWNITIKQ-TVTTTT 14
Db 172 CWNITIKQTVTTTT 186

RESULT 12
ID P97895 PRELIMINARY; PRT; 243 AA.
AC P97895;
DT 01-MAY-1997 (TrEMBLrel. 03, Created)
DT 01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Hamster scrapie prion (Prp 27-30) (Fragment).
OS Mesocricetus auratus (Golden hamster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC Mesocricetus.
OX NCBI_TaxID=10036;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=87108309; PubMed=3100471;
RA McKinley M.P., Prusiner S.B.;
RT "Biology and structure of scrapie prions.";
RL Int. Rev. Neurobiol. 28:1-57(1986).
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL; M37381; AAA37090.1; -.
DR HSP; P04273; I810.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion_octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
FT SIGNAL 1 22 By similarity.
FT CHAIN 23 222 Major prion protein.
FT PROPEP 223 245 Removed in mature form (By similarity).
FT LIPID 222 222 GPI-anchor amidated serine (By similarity).
FT DISULFID 171 206 By similarity.
FT CARBOHYD 173 173 N-linked (GlcNAc...) (potential).
FT CARBOHYD 189 189 N-linked (GlcNAc...) (potential).
FT DOMAIN 51 83 4 X 8 AA tandem repeats of P-H-G-G-G-W-G-Q.
FT REPEAT 51 59 1.
FT REPEAT 60 67 2.
FT REPEAT 68 75 3.
FT REPEAT 76 83 4.
SQ SEQUENCE 243 AA; 26643 MW; 4F53612BBFF240F9 CRC64;

Query Match 85.2%; Score 60.5; DB 2; Length 243;
Best Local Similarity 93.3%; Pred. No. 0.013; 0; Mismatches 1; Gaps 1;
Matches 14; Conservative 0;

Qy 1 CWNITIKQ-TVTTTT 14
Db 168 CWNITIKQTVTTTT 182

RESULT 13
ID P10_CERAE STANDARD; PRT; 245 AA.
AC P40250;
DT 01-FEB-1995 (Rel. 31, Created)
DT 01-FEB-1995 (Rel. 31, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP33-35C).
GN Name=PRNP;
OS Cercopithecus aethiops (Green monkey) (Grivet), and
OS Cercopithecus diana (Diana monkey).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
OC Cercopithecinae; Cercopithecus.
OX NCBI_TaxID=9534; 36224;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=95139066; PubMed=7837269;
RA Schatzl H.M., Dacosta M., Taylor L., Cohen F.E., Prusiner S.B.;
RT "Prion protein gene variation among primates.";
RL J. Mol. Biol. 245:362-374(1995).
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "vode".
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstman-Strausler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.

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or send an email to license@isb-sib.ch).

EMBL; U08291; AAC50080.1; -.
EMBL; U08292; AAC50081.1; -.
DR PIR; S53627; S53627.
DR PIR; S71045; S71045.
DR HSP; P23907; IG04.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion_octapep; 5.
DR PRINTS; PR00341; PRION.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT SIGNAL 1 22 By similarity.
FT CHAIN 23 222 Major prion protein.
FT PROPEP 223 245 Removed in mature form (By similarity).
FT LIPID 222 222 GPI-anchor amidated serine (By similarity).
FT DISULFID 171 206 By similarity.
FT CARBOHYD 173 173 N-linked (GlcNAc...) (potential).
FT CARBOHYD 189 189 N-linked (GlcNAc...) (potential).
FT DOMAIN 51 83 4 X 8 AA tandem repeats of P-H-G-G-G-W-G-Q.
FT REPEAT 51 59 1.
FT REPEAT 60 67 2.
FT REPEAT 68 75 3.
FT REPEAT 76 83 4.
SQ SEQUENCE 245 AA; 26885 MW; D582B58E2726C99A CRC64;

Query Match 85.2%; Score 60.5; DB 1; Length 245;
Best Local Similarity 93.3%; Pred. No. 0.014;

```


Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;

QY 1 CWNITIKQ-TVTTTT 14
 |||||
 Db 171 CWNITIKQHTVTTTT 185

RESULT 14

PRIO_CERMO STANDARD; PRT; 246 AA.
 AC P61761; Q95172; Q95173;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
 GN Name=PRNP;
 OS Cercopithecus mona (Mona monkey).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
 OC Cercopithecinae; Cercopithecus.
 OX NCBI_TaxID=36226;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA van der Kuyl A.C., Dekker J.T., Goudemir J.;
 RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
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 CC EMBL; U75386; AAB50625.1; --
 CC HSP; P23907; IG04.
 CC InterPro; IPR000817; Prion.
 CC Pfam; PF00377; Prion; 1.
 CC PRINTS; PR00341; PRION.
 CC PROSITE; PS00291; PRION_1; 1.
 CC PROSITE; PS00706; PRION_2; 1.
 CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
 FT NON_TER 1 1
 FT SIGNAL <1 15 By similarity.
 FT CHAIN 16 223 Major prion protein.
 FT PROPEP 224 246 Removed in mature form (By similarity).
 FT LIPID 223 223 GPI-anchor amidated serine (By similarity).
 FT DISULFID 172 207 By similarity.
 FT CARBOHYD 174 174 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 190 190 N-linked (GlcNAc...) (Potential).
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.
 FT REPEAT 44 52 1.
 FT REPEAT 53 60 2.
 FT REPEAT 61 68 3.
 FT REPEAT 69 76 4.
 FT REPEAT 77 84 5.
 FT REPEAT 84 84 5.
 SQ SEQUENCE 246 AA; 2690 MW; 835D147CA2B4FDD3 CRC64;

Query Match 85.2%; Score 60.5; DB 1; Length 246;
 Best Local Similarity 93.3%; Pred. NO. 0.014;
 Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
 QY 1 CWNITIKQ-TVTTTT 14
 |||||
 Db 172 CWNITIKQHTVTTTT 186

RESULT 15

PRIO_CERNE STANDARD; PRT; 246 AA.
 AC P61762; Q95172; Q95173;
 DT 01-NOV-1997 (Rel. 35, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
 GN Name=PRNP;
 OS Cercopithecus neglectus (DeBrazza's monkey).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
 OC Cercopithecinae; Cercopithecus.
 OX NCBI_TaxID=36227;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA van der Kuyl A.C., Dekker J.T., Goudemir J.;
 RT "Evidence for an increased substitution rate of the hominoid prion protein gene during the period of brain expansion.";
 RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
 CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called "rods".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and animals infected with the degenerative neurological diseases kuru, Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome (GSS), scrapie, bovine spongiform encephalopathy (BSE), transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
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 CC EMBL; U75387; AAB50626.1; --
 CC HSP; P23907; IG04.
 CC InterPro; IPR000817; Prion.
 CC Pfam; PF00377; Prion; 1.
 CC PRINTS; PR00391; Prion; 1.
 CC PRINTS; PR00341; PRION.
 CC PROSITE; PS00291; PRION_1; 1.
 CC PROSITE; PS00706; PRION_2; 1.
 CC Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
 FT NON_TER 1 1
 FT SIGNAL <1 15 By similarity.
 FT CHAIN 16 223 Major prion protein.
 FT PROPEP 224 246 Removed in mature form (By similarity).
 FT LIPID 223 223 GPI-anchor amidated serine (By similarity).
 FT DISULFID 172 207 By similarity.
 FT CARBOHYD 174 174 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 190 190 N-linked (GlcNAc...) (Potential).
 FT DOMAIN 44 84 5 X 8 AA tandem repeats of P-H-G-G-W-G-Q.
 FT REPEAT 44 52 1.
 FT REPEAT 53 60 2.
 FT REPEAT 61 68 3.

FT REPEAT 69 76 4.
FT REPEAT 77 84 5.
SQ SEQUENCE 246 AA; 26900 MW; 835D147CA2B4FDD3 CRC64;
Query Match 85.2%; Score 60.5; DB 1; Length 246;
Best Local Similarity 93.3%; Pred No. 0.014, 0; Indels 1; Gaps 1;
Matches 14; Conservative 0; Mismatches 0; Indels 1; Gaps 1;
QY 1 CUNTIKO-TTTTTT 14
Db 172 CUNTIKQHIVITTT 186

Search completed: October 26, 2004, 15:44:10
Job time : 33.5417 secs

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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:33:38 ; Search time 49.1667 Seconds
(without alignments)
145.924 Million cell updates/sec

Title: US-09-603-832-7
Perfect score: 103
Sequence: 1 ETDVQMERVVEQMCVTQYQ 20

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2002273 seqs, 358729299 residues

Total number of hits satisfying chosen parameters: 2002273

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_23Sep04.*
1: Geneseqp1980s.*
2: Geneseqp1990s.*
3: Geneseqp2000s.*
4: Geneseqp2001s.*
5: Geneseqp2002s.*
6: Geneseqp2003as.*
7: Geneseqp2003bs.*
8: Geneseqp2004s.*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	103	100.0	20	4	AAB66615 Mouse pr
2	103	100.0	124	5	ABG94340 Mouse mpr
3	103	100.0	124	5	ABG80852 Mouse tru
4	103	100.0	124	5	ABG80852 Mouse tru
5	103	100.0	208	3	ABG7316 Mouse pri
6	103	100.0	208	3	ABG7316 Mouse pri
7	103	100.0	208	5	ABG31904 Chimera-t
8	103	100.0	208	5	ABG31904 Chimera-t
9	103	100.0	209	7	ABG66133 Mouse pri
10	103	100.0	211	4	ABG31905 HCHV type
11	103	100.0	211	4	ABG31905 HCHV type
12	103	100.0	225	6	ABR42793 Rat prion
13	103	100.0	226	7	ABR42793 Rat prion
14	103	100.0	254	2	ABR85240 Rat prion
15	103	100.0	254	2	ABR85240 Rat prion
16	103	100.0	254	2	AAW69659 Mouse pri
17	103	100.0	254	2	AAW69659 Mouse pri
18	103	100.0	254	4	AAW72360 Murine pr
19	103	100.0	254	4	AAW72360 Murine pr
20	103	100.0	254	4	AAW72360 Murine pr
21	103	100.0	254	4	AAW72360 Murine pr
22	103	100.0	254	4	AAW72360 Murine pr
23	103	100.0	254	5	AAW50888 Mouse pri
24	103	100.0	254	5	AAW50888 Mouse pri
25	103	100.0	254	5	ABG31906 Mouse pri

26	103	100.0	254	5	ABG04427	Abb04427 Murine pr
27	103	100.0	254	5	AAE15602	AAE15602 Mouse prp
28	103	100.0	254	5	AAE15609	AAE15609 Mouse prp
29	103	100.0	254	6	ABU58867	ABU58867 Mouse prp
30	103	100.0	254	6	ABU58867	ABU58867 Mouse prp
31	103	100.0	254	6	ABR42792	ABR42792 Mouse prp
32	103	100.0	254	7	ABR42792	ABR42792 Mouse prp
33	103	100.0	254	7	ADCS9531	ADCS9531 Mouse pri
34	103	100.0	254	7	ADCS2088	ADCS2088 Mouse pri
35	103	100.0	254	7	ADD24194	ADD24194 Mouse pri
36	103	100.0	254	7	ADSE6264	ADSE6264 Rat prote
37	103	100.0	254	7	ADSE6264	ADSE6264 Rat prote
38	103	100.0	254	7	ADSE6264	ADSE6264 Rat prote
39	103	100.0	254	7	ADSE6264	ADSE6264 Rat prote
40	103	100.0	254	8	ADSE6264	ADSE6264 Rat prote
41	103	100.0	254	8	ADSE6264	ADSE6264 Rat prote
42	103	100.0	254	8	ADSE6264	ADSE6264 Rat prote
43	103	100.0	254	8	ADSE6264	ADSE6264 Rat prote
44	103	100.0	254	8	ADSE6264	ADSE6264 Rat prote
45	103	100.0	254	8	ADSE6264	ADSE6264 Rat prote

ALIGNMENTS

RESULT 1
AAB66615
ID AAB66615 standard; peptide; 20 AA.

XX AAB66615;
XX AC
XX 05-APR-2001 (first entry)
XX Mouse prion helix 3 peptide.
XX Mouse prion helix 3 peptide.
XX Coiled-coil; prion; helix.
XX Mus sp.
XX WO200100010-A1.
XX 04-JAN-2001.
XX 23-JUN-2000; 2000MO-CA000736.
XX 25-JUN-1999; 99US-0141203P.
XX (KOND/) KONDEJEWski L H.
XX (IRVI/) IRVIN R T.
XX (HODG/) HODGES R S.
XX Kondejewski LH, Irvin RT, Hodges RS;
XX WPI; 2001-137855/14.
XX Coiled-coil polypeptide compositions useful for generating antibodies
XX against a specific epitope, comprises a specific epitope from alpha-
XX helical surface region of a protein inserted into coiled-coil polypeptide
XX template.
XX Disclosure; Fig 4; 25pp; English.

The present invention relates to a coiled-coil polypeptide with a selected
epitope from solvent accessible region of a protein inserted into a
coiled-coil polypeptide template. The coiled-coil polypeptides are useful
for generating antibodies specific to a selected epitope from a selected
protein and also for identifying ligands that selectively bind the alpha-
helical segment contained in the native protein. The conformation-
specific antibodies are useful as therapeutic and diagnostic ligands

Sequence 20 AA;

Query Match 100.0%; Score 103; DB 4; Length 20;

Best Local Similarity 100.0%; Pred. No. 6.8e-10;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
| | | | | | | | | | | | | | | | | | | | | |
Db 1 ETDVKMERVVEQMCVTQYQ 20

RESULT 2

ABG94340
ID ABG94340 standard; protein; 124 AA.

XX AC ABG94340;

XX DT 10-DEC-2002 (first entry)

XX DE Mouse mPrPt protein.

XX KW Human; mouse; rat; antimicrobial; antiallergic; immunomodulatory;
KW cytotatic; antiviral; antidiabetic; hypoglycaemic; antigen array;
KW vaccine; infectious disease.

XX OS Mus sp.

XX PN WO200256905-A2.

XX PD 25-JUL-2002.

XX PF 21-JAN-2002; 2002WO-IB000166.

XX PR 19-JAN-2001; 2001US-0262379P.

XX PR 04-MAY-2001; 2001US-0288549P.

XX PR 05-OCT-2001; 2001US-0326998P.

XX PR 07-NOV-2001; 2001US-0331045P.

XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX PI Renner WA, Bachmann M, Tissot A, Maurer P, Lechner F, Sebbel P;

XX PI Piossek C;

XX DR WPI; 2002-627351/67.

XX PT Molecular antigen array used in the production of vaccines for infectious
XX diseases.

XX PS Disclosure; Page 438; 441pp; English.

XX CC This invention relates to a novel ordered and repetitive antigen array
XX used in the production of vaccines for infectious diseases. The invention
XX also discloses a composition comprising a non-natural molecular scaffold
XX comprising a core particle selected from a core particle of a non-natural
XX origin and a core particle of natural origin and an organiser comprising
XX at least one first attachment site, where the organiser is connected to
XX the core particle by at least one covalent bond. Also disclosed is an
XX antigen or antigenic determinant with at least one second attachment
XX site, where the antigen or antigenic determinant is amyloid beta peptide
XX (Abeta1-42) or its fragment and where the second attachment site is
XX selected from an attachment site not naturally occurring with the antigen
XX or antigenic determinant and an attachment site naturally occurring with
XX the antigen or antigenic determinant, where the second attachment site is
XX capable of association through at least one non-peptide bond to the first
XX attachment site and where the antigen or antigenic determinant and the
XX scaffold interact through the association to form an ordered and
XX repetitive antigen array. The invention also comprises a coat protein
XX capable of forming a capsid which comprises mutant Qbeta coat proteins
XX having an amino acid sequence selected from five amino acid sequences
XX fully defined in the specification. The compounds of the invention may
XX have antimicrobial, antiallergic, immunomodulatory, cytostatic,
XX antiviral, antidiabetic, or hypoglycaemic activities and may be used in
XX immunisation and as a vaccine. The present sequence represents a protein
XX sequence used to create the compositions of the invention

XX Sequence 124 AA;

Query Match 100.0%; Score 103; DB 5; Length 124;
Best Local Similarity 100.0%; Pred. No. 4.9e-09;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
| | | | | | | | | | | | | | | | | | | | | |
Db 80 ETDVKMERVVEQMCVTQYQ 99

RESULT 3

ABG80652
ID ABG80652 standard; protein; 124 AA.

XX AC ABG80652;

XX DT 29-NOV-2002 (first entry)

XX DE Mouse truncated prion protein with C terminal cysteine containing linker.

XX KW Molecular antigen array; vaccine; antigen; antimicrobial; mutant;
KW molecular scaffold; amyloid beta; Abeta 1-42; influenza; mutein;
KW graft versus host disease; Igs-mediated allergic reaction; anaphylaxis;
KW adult respiratory distress syndrome; ARDS; Crohn's disease;
KW allergic asthma; acute lymphoblastic leukaemia; non-Hodgkin's lymphoma;
KW Grave's disease; systemic lupus erythematosus; osteoporosis;
KW inflammatory immune disease; myasthenia gravis; multiple sclerosis;
KW immunoproliferative disease lymphadenopathy; Alzheimer's disease;
KW angioimmunoproliferative lymphadenopathy; immunoblastic lymphadenopathy;
KW rheumatoid arthritis; diabetes; infectious disease; factor Xa;
KW enterokinase; cysteine-containing linker.

XX OS Mus sp.

XX OS Synthetic.

XX PN WO200256907-A2.

XX PD 25-JUL-2002.

XX PF 21-JAN-2002; 2002WO-IB000169.

XX PR 19-JAN-2001; 2001US-0262379P.

XX PR 04-MAY-2001; 2001US-0288549P.

XX PR 05-OCT-2001; 2001US-0326998P.

XX PR 07-NOV-2001; 2001US-0331045P.

XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX PA (MAUR/) MAURER P.

XX PA (LECH/) LECHNER F.

XX PA (ORTM/) ORTMANN R.

XX PA (LUEO/) LUEOEND R.

XX PA (STAU/) STAUFENBIEL M.

XX PA (FREY/) FREY P.

XX PI Maurer P, Lechner F, Ortmann R, Lueoend R, Staufenbiel M, Frey P;

XX PI Renner WA, Bachmann M, Tissot A, Sebbel P, Piossek C;

XX DR WPI; 2002-636514/68.

XX PT Molecular antigen array used in the production of vaccines for infectious
XX diseases.

XX PS Example 7; Page 415; 418pp; English.

XX CC The invention relates to a composition comprising: (a) a non-natural
XX molecular scaffold comprising: (i) a core particle selected from: (1) a
XX core particle of a non-natural origin; and (2) a core particle of natural
XX origin; and (ii) an organiser comprising at least one first attachment
XX site, where the organiser is connected to the core particle by at least
XX one covalent bond; (b) an antigen or antigenic determinant with at least
XX one second attachment site, where the antigen or antigenic determinant is
XX amyloid beta peptide (Abeta 1-42) or its fragment, and where the second

CC attachment site is selected from: (i) an attachment site not naturally
 CC occurring with the antigen or antigenic determinant; and (ii) an
 CC attachment site naturally occurring with the antigen or antigenic
 CC determinant, where the second attachment site is capable of association
 CC through at least one non-peptide bond to the first attachment site; and
 CC where the antigen or antigenic determinant and the scaffold interact
 CC through the association to form an ordered and repetitive antigen array.
 CC Also included is a process for producing a non-naturally occurring
 CC ordered and repetitive antigen array. The composition is used in
 CC immunisation and as a vaccine for diseases such as influenza, graft
 CC versus host disease, IgE-mediated allergic reactions, anaphylaxis, adult
 CC respiratory distress syndrome (ARDS), Crohn's disease, allergic asthma,
 CC acute lymphoblastic leukaemia, non-Hodgkin's lymphoma, Grave's disease,
 CC systemic lupus erythematosus, inflammatory immune diseases, myasthenia
 CC gravis, immunoproliferative disease lymphadenopathy,
 CC angioimmunoproliferative lymphadenopathy, immunoblastic lymphadenopathy,
 CC rheumatoid arthritis, diabetes, multiple sclerosis, Alzheimer's disease,
 CC osteoporosis and infectious diseases. The present sequence is a modified
 CC antigen for use in the array of the invention. The antigen is modified to
 CC possess a cleavage site (enterokinase or factor Xa) and a Cysteine-
 CC containing N- or C-terminal linker peptide which serves as the attachment
 CC point to a virus like particle or bacterial protein (the scaffold
 CC protein)

XX Sequence 124 AA;

Query Match 100.0%; Score 103; DB 5; Length 124;
 Best Local Similarity 100.0%; Pred. No. 4.9e-09;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 DB 80 ETDVKMERVVEQMCVTQYQ 99

RESULT 4
 ADD24200
 ID ADD24200 standard; protein; 124 AA.

XX AC ADD24200;

XX DT 15-JAN-2004 (first entry)

XX DE mPrPt-EK-Fc* cleaved protein sequence.

XX vaccine composition; virus-like particle; core particle;
 XX first attachment site; antigen; antigenic determinant; prion protein;
 KW PrP; PrP peptide; vaccine; neuroprotective; antiinflammatory;
 KW prion disease; Bovine Spongiform Encephalopathy; BSE;
 KW Creutzfeldt-Jakob Disease; prion, mPrPt-EK-Fc*.

XX Unidentified.

XX OS Prion.

XX EN WO2003059386-A2.

XX PD 24-JUL-2003.

XX PF 17-JAN-2003; 2003WO-EP000460.

XX PR 18-JAN-2002; 2002US-00050902.

XX PR 21-JAN-2002; 2002WO-IB000166.

XX PR 08-JUL-2002; 2002US-0393725P.

XX PR 18-JUL-2002; 2002US-0396590P.

XX PA (CYTO-) CYTOS BIOTECHNOLOGY AG.

XX PI Bachmann M, Maurer P, Pelliccioli E, Renner WA;

XX DR WPI; 2003-598483/56.

XX A vaccine composition for preventing or treating prion diseases (e.g.
 PT Creutzfeldt-Jakob Disease) comprises a virus-like particle (e.g. RNA-

PT phage) and at least one prion protein or peptide bound to the virus-like
 PT particle.

XX Example 13; SEQ ID NO 93; 246pp; English.

XX This invention relates to a novel vaccine composition comprising a virus-
 CC like or a core particle with at least one first attachment site and at
 CC least one antigen or antigenic determinant that is a prion protein (PrP)
 CC or its dimer, or a PrP peptide, the antigen or antigenic determinant
 CC being bound to the virus-like or core particle. The vaccine of the
 CC invention may have neuroprotective or antiinflammatory activity. The
 CC composition is useful as a medicament or in manufacturing a medicament
 CC for the treatment or prevention of prion diseases. The prion diseases may
 CC include Bovine Spongiform Encephalopathy (BSE) or Creutzfeldt-Jakob
 CC disease. The present sequence is the amino acid sequence of the cleaved
 CC protein translated from a mouse prion protein (PrP) vector (mPrPt-EK-Fc*)
 CC which was used during the exemplification of the invention.

XX SQ Sequence 124 AA;

Query Match 100.0%; Score 103; DB 7; Length 124;
 Best Local Similarity 100.0%; Pred. No. 4.9e-09;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 DB 80 ETDVKMERVVEQMCVTQYQ 99

RESULT 5
 AAB07316
 ID AAB07316 standard; protein; 208 AA.

XX AC AAB07316;

XX DT 17-OCT-2000 (first entry)

XX DE Mouse prion protein sequence.

XX Mouse; prion protein; transmissible spongiform encephalopathy;
 KW bovine spongiform encephalopathy; BSE diagnosis; TSE; PrP.

XX OS Mus sp.

XX PH Key Location/Qualifiers

XX FT Region 37..68

XX /note= "Repeat region consisting of tandem repeats of
 FT repeat unit: PHGGGQG (AAB07319)"

XX Disulfide-bond 156..191

XX Modified-site 208

XX /note= "C-terminal phospho-inositol glycolipid membrane
 XX anchor (-GPI)"

XX WO200029850-A1.

XX PD 25-MAY-2000.

XX PF 27-OCT-1999; 99WO-FI000897.

XX PR 17-NOV-1998; 98FI-00002481.

XX PA (WALL-) WALLAC OY.

XX PA (BBSR-) BBSRC OFFICE.

XX PI Hope J, Barnard GJR, Birkett CR;

XX WPI; 2000-387880/33.

XX Novel immunoassay for prion protein, used for the determination of
 PT transmissible spongiform encephalopathies in bovines.

XX Disclosure; Page 41-42; 50pp; English.

CC The present sequence is the mouse prion protein (PrP) sequence.
 CC Conversion of the normal cellular form of PrP into an aggregated,
 CC insoluble isoform is implicated in the pathogenesis of Transmissible
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)
 CC and Gerstmann-Straussler-Sheinker syndrome (GSS). The concentration of
 CC this protein in body fluid or tissue samples may be measured by an assay
 CC of the present invention, in which a PrP epitope is captured by an
 CC antibody, which is then detected. The presence of PrP indicates TSE. PrP
 CC epitopes (AAB07320-B07326) are derived from the protease resistant core
 CC of PrP that is occluded when the PrP is in an aggregated state
 CC
 CC Sequence 208 AA;
 CC
 CC Query Match 100.0%; Score 103; DB 3; Length 208;
 CC Best Local Similarity 100.0%; Pred. No. 8.5e-09;
 CC Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 CC
 CC QY 1 ETDVKMMERVVEQMCVTQYQ 20
 CC DB 177 ETDVKMMERVVEQMCVTQYQ 196
 CC
 CC RESULT 6
 CC AAB07327
 CC ID AAB07327 standard; protein; 208 AA.
 CC XX
 CC AC AAB07327;
 CC DT 17-OCT-2000 (first entry)
 CC DE Mouse prion protein sequence.
 CC KW Mouse; prion protein; transmissible spongiform encephalopathy;
 CC KW bovine spongiform encephalopathy; TSE diagnosis; PrP.
 CC OS Mus sp.
 CC PH Key Location/Qualifiers
 CC FT Region 37..68
 CC FT /note= "Repeat region consisting of tandem repeats of
 CC FT repeat unit: PHGGGWGQ (AAB07319)"
 CC FT Disulfide-bond 156..191
 CC FT Modified-site 208
 CC FT /note= "C-terminal phospho-inositol glycolipid membrane
 CC FT anchor (-GPI)"
 CC XX
 CC XX WO200029849-A1.
 CC PN 25-MAY-2000.
 CC PD
 CC XX
 CC XX 27-OCT-1999; 99WO-FI000896.
 CC XX
 CC PR 17-NOV-1998; 98FI-00002480.
 CC XX (WALL-) WALLAC OY.
 CC PA (BBSR-) BBSRC OFFICE.
 CC XX
 CC PI Hope J, Barnard GJR, Birkett CR;
 CC XX WPI; 2000-399778/34.
 CC DR
 CC XX
 CC PT New immunoassay for prion protein, used for determination of
 CC PT transmissible spongiform encephalopathies in mammals, comprises specific
 CC PT capture antibody.
 CC XX
 CC PS Disclosure; Page 41-42; 50pp; English.
 CC XX
 CC The present sequence is the mouse prion protein (PrP) sequence.
 CC Conversion of the normal cellular form of PrP into an aggregated,
 CC insoluble isoform is implicated in the pathogenesis of Transmissible
 CC Spongiform Encephalopathies (TSEs). Examples of TSEs include Bovine
 CC Spongiform Encephalopathy (BSE), scrapie, Creutzfeldt-Jakob disease (CJD)

CC and Gerstmann-Straussler-Sheinker syndrome (GSS). The concentration of
 CC this protein in body fluid or tissue samples may be measured by an assay
 CC of the present invention, in which a PrP epitope is captured by an
 CC antibody, which is then detected. The presence of PrP indicates TSE. PrP
 CC epitopes (AAB07320-B07326) are derived from the protease resistant core
 CC of PrP that is occluded when the PrP is in an aggregated state
 CC
 CC Sequence 208 AA;
 CC
 CC Query Match 100.0%; Score 103; DB 3; Length 208;
 CC Best Local Similarity 100.0%; Pred. No. 8.5e-09;
 CC Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 CC
 CC QY 1 ETDVKMMERVVEQMCVTQYQ 20
 CC DB 177 ETDVKMMERVVEQMCVTQYQ 196
 CC
 CC RESULT 7
 CC ABG31904
 CC ID ABG31904 standard; protein; 208 AA.
 CC XX
 CC AC ABG31904;
 CC DT 05-NOV-2002 (first entry)
 CC DE Chimera-type prion protein #2.
 CC XX
 CC KW Prion; follicular dendritic cells; FDC; infection; blood preparation;
 CC KW food; cosmetic; CJD; Creutzfeldt-Jacob disease.
 CC XX
 CC OS Synthetic.
 CC XX
 CC PN WO200261418-A1.
 CC XX
 CC PD 08-AUG-2002.
 CC XX
 CC XX 31-JAN-2002; 2002WO-JF000803.
 CC PF
 CC PR 31-JAN-2001; 2001JP-00024279.
 CC PA (TOHO) UNIV TOHOKU.
 CC XX
 CC PI Kitamoto T, Miyoshi K, Mohri S;
 CC XX WPI; 2002-619277/66.
 CC DR
 CC XX
 CC PT Screening (non-)human prion disease infection factor based on abnormal
 CC PT prion protein sedimentation in non-human follicular dendritic cells as
 CC PT indication, applicable in safety test on e.g. drugs and cosmetics.
 CC XX
 CC PS Claim 9; Page 55-57; 69pp; Japanese.
 CC XX
 CC CC This invention relates to a novel method for screening human or non-
 CC human prion disease infection factor in a sample by using abnormal prion
 CC protein sedimentation in non-human follicular dendritic cells (FDC) as
 CC indication. The method of the invention is useful for screening (non-)
 CC human prion disease infection factor, which is applicable in safety tests
 CC on drugs like blood preparations, foods and cosmetics, and for developing
 CC drugs for e.g. CJD, as well as for early diagnosis of Creutzfeldt-Jacob
 CC disease (CJD). The method of the invention is simple and quick. The
 CC present sequence represents a chimeric type prion related protein of the
 CC invention
 CC
 CC Sequence 208 AA;
 CC
 CC Query Match 100.0%; Score 103; DB 5; Length 208;
 CC Best Local Similarity 100.0%; Pred. No. 8.5e-09;
 CC Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 CC
 CC QY 1 ETDVKMMERVVEQMCVTQYQ 20
 CC DB 178 ETDVKMMERVVEQMCVTQYQ 197

PT also related aggregates, fibrils and polymers.
 XX Claim 11; Page 137-138; 188pp; English.
 XX The present sequence represents a prion protein. The specification describes chimeric polypeptides, which comprise at least one SCHAG (self-coalesces into higher-order aggregates) amino acid sequence fused in frame with a polypeptide of interest (which is other than a marker protein), a glutathione-S-transferase or a staphylococcal nuclear protein. The specification also describes chimeric polypeptides that comprises an amyloidogenic domain that causes aggregation into fibrils. The chimeric polypeptides are used to prepare polymers with multiple reactivities, e.g. derivatised with enzymes, or specific binding partners, and useful e.g. for performing multi-step chemical reactions. They can be used to create an inducible, or stable phenotypic alteration in a cell, e.g. for gene therapy, protein production, imparting disease and resistance to plants, altering plant pigmentation and for diagnosis and treatment of prion diseases
 XX Sequence 211 AA;
 SQ Query Match 100.0%; Score 103; DB 4; Length 211;
 Best Local Similarity 100.0%; Pred. No. 8.7e-09;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 ETDVKMERVVVEQMCVTQYQ 20
 |||||
 Db 179 ETDVKMERVVVEQMCVTQYQ 198
 |||||
 RESULT 11
 ABR42793
 ID ABR42793 standard; protein; 225 AA.
 XX ABR42793;
 AC ABR42793;
 DT 08-SEP-2003 (first entry)
 XX Rat prion protein.
 DE Rat; prion protein; prionosis; neurotropic; neuroprotective; immunogen;
 KW vaccine.
 XX Rattus sp.
 OS WO2003045128-A2.
 PN 05-JUN-2003.
 PD 21-NOV-2002; 2002WO-US037634.
 XX 21-NOV-2001; 2001US-0331801P.
 XX (UTNY) UNIV NEW YORK STATE.
 PA Frangione B, Wisniewski T, Sigurdson EM;
 PI WPI; 2003-505145/47.
 DR New synthetic immunogenic but non-deposit forming peptides, useful for inducing an immune response to prions, amyloids, amylin or amylin fibrils, particularly for treating e.g. Alzheimer's, scrapie or Creutzfeldt-Jacob disease.
 PT Disclosure; Page 228-229; 265pp; English.
 XX The present sequence is the amino acid sequence of rat prion protein. The invention provides a synthetic immunogenic but non-deposit-forming polypeptide that is homologous to human (see ABR42789) or bovine (see ABR42798) prion protein. Such peptides, alone or conjugated to an immunostimulant, are used to induce an immune response to prion, and immunizing compositions comprising the peptides are used in a claimed method for inducing an immune response to hpp and prion deposits.
 CC

CC Antibodies directed against the peptides can be used in passive immunization
 CC Sequence 225 AA;
 XX Query Match 100.0%; Score 103; DB 6; Length 225;
 Best Local Similarity 100.0%; Pred. No. 9.3e-09;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 ETDVKMERVVVEQMCVTQYQ 20
 |||||
 Db 172 ETDVKMERVVVEQMCVTQYQ 191
 |||||
 RESULT 12
 ABR85240
 ID ABR85240 standard; protein; 226 AA.
 XX ABR85240;
 AC ABR85240;
 DT 04-DEC-2003 (first entry)
 XX Rat prion-related protein SEQ ID NO:121.
 DE rat; streptozocin; kinase; phosphatase; ion channel protein; receptor; transporter; G-protein coupled receptor; GPCR; DNA-binding proteins; protease; enzyme; analgesic; gene therapy; pain; diabetes.
 KW Rattus norvegicus.
 XX OS
 XX EPI284297-A2.
 PN 19-FEB-2003.
 PD 26-JUL-2002; 2002EP-00255228.
 XX 27-JUL-2001; 2001GB-00018354.
 PR 07-FEB-2002; 2002GB-00002880.
 XX (WARN) WARNER LAMBERT CO.
 PA Brooksbank RA, Dixon AK, Lee K, Pinnock RD;
 PI WPI; 2003-364994/35.
 DR N-PSDB; ADB85241.
 XX Use of gene sequence that is down-regulated in response to streptozocin-induced diabetes, vector, host cell, animal, polypeptide and antibody, in screening of compounds for treating or diagnosing pain.
 PT Disclosure; Page 190; 256pp; English.
 XX The invention relates to a novel isolated gene sequence that is down-regulated in the spinal cord in response to streptozocin-induced diabetes, or comprising, hybridising or having at least 80% sequence identity to a sequence whose expression products are kinases, phosphatases, ion channel proteins, receptors, transporters, G-protein coupled receptor proteins, DNA-binding proteins, proteases or enzymes, given in the specification. A gene of the invention has analgesic activity, and may have a use in gene therapy. The gene sequences, vector, host cell, animal, polypeptide and antibody are useful for screening of compounds for diagnosing or treating pain. The kits are useful for simultaneous, separate or sequential detecting and/or quantifying down-regulation of a gene sequence in the spinal cord of a mammal in response to streptozocin-induced diabetes. The compound or pharmaceutical composition is useful as a medicament for treating or diagnosing pain. The present sequence represents a protein encoded by a gene of the invention.
 XX Sequence 226 AA;
 SQ Query Match 100.0%; Score 103; DB 7; Length 226;
 Best Local Similarity 100.0%; Pred. No. 9.3e-09;

Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVQMMERVVEQMCVTQYQ 20
 Db 172 ETDVQMMERVVEQMCVTQYQ 191

RESULT 13
 AAR86714
 ID AAR86714 standard; protein; 254 AA.
 AC AAR86714;
 DT 15-OCT-1996 (first entry)
 DE Mouse prion protein, MoPrP.
 KW Chimeric gene; chimeric prion; transgenic animal; diagnosis;
 KW spongiform encephalopathy; PrP; central nervous system; CNS;
 KW Creutzfeldt-Jakob disease; CJD; BSE.
 OS Mus musculus.
 XX WO9531466-A1.
 PN 23-NOV-1995.
 PD 10-APR-1995; 95WO-US004426.
 PF 13-MAY-1994; 94US-00242188.
 PR (REGC) UNIV CALIFORNIA.
 PA Prusiner SB, Scott MR, Telling G;
 PI WPI; 1996-010868/01.
 XX Chimeric prion protein gene - for formation of a transgenic animal
 PT susceptible to prion infection by prion(s) normally specific for a
 PT different species.
 XX Disclosure; Fig 3; 65pp; English.

Pathogenic prions in a sample can be detected by injecting the sample to
 be tested into a transgenic mouse. The mouse genome includes a chimeric
 PrP gene in which the gene includes a portion of a gene of the animal
 (e.g. human) in danger of infection from prions in the sample. Preferred
 transgenic mice express a chimeric prion protein (PrP) in which a segment
 of this mouse PrP, MoPrP, is replaced with the corresponding human PrP
 sequence. The chimeric PrP, designated MHu2MPrP, differs from this MoPrP
 by 9 AA between residues 96 and 167

Sequence 254 AA;
 Query Match 100.0%; Score 103; DB 2; Length 254;
 Best Local Similarity 100.0%; Pred. No. 1.1e-08;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVQMMERVVEQMCVTQYQ 20
 Db 199 ETDVQMMERVVEQMCVTQYQ 218

RESULT 14
 AAW69659
 ID AAW69659 standard; protein; 254 AA.
 AC AAW69659;
 DT 25-MAR-2003 (revised)
 DT 19-OCT-1998 (first entry)
 DE Mouse prion protein MoPrP.

XX Mouse; prion protein; PrP; transgenic animal; artificial gene;
 KW Creutzfeldt Jakob disease; CJD; neurodegenerative disease; human.
 OS Mus sp.
 XX US5792901-A.
 PN 11-AUG-1998.
 PD 30-JUL-1996; 96US-00692892.
 PF 13-MAY-1994; 94US-00242188.
 PR 31-JUL-1995; 95US-00509261.
 PR 31-AUG-1995; 95US-00521992.
 XX (REGC) UNIV CALIFORNIA.
 XX Scott MR, Telling GC, Prusiner SB;
 DT WPI; 1998-456207/39.
 DR Transgenic mouse with altered PrP gene - for detecting disease-causing
 PT prions.
 PT Example 8; Fig 3; 37pp; English.
 XX A transgenic mouse has been developed which comprises a genome in which
 CC both alleles of an endogenous PrP (prion protein) gene of the mouse are
 CC ablated, the genome containing operatively inserted all exogenous non-
 CC mouse PrP gene. The mouse is susceptible to infection with prions which
 CC generally only infect a genetically diverse mammal due to the presence of
 CC the exogenous PrP gene and ablated endogenous PrP gene. It exhibits
 CC symptoms of prion disease within 200 days or less after inoculation with
 CC prions which generally only infect a genetically diverse mammal. Also
 CC described in the present invention are: (A) a method of producing the
 CC transgenic mouse; and (B) determining the presence of infectious prions
 CC in a sample obtained from a bovine. The transgenic mouse is used to
 CC detect for Creutzfeldt Jakob disease (CJD) a fatal neurodegenerative
 CC disease of humans caused by prions. The present sequence represents mouse
 CC prion protein (MoPrP), used in an example from the present invention.
 CC (Updated on 25-MAR-2003 to correct PF field.)
 XX Sequence 254 AA;
 SQ Query Match 100.0%; Score 103; DB 2; Length 254;
 Best Local Similarity 100.0%; Pred. No. 1.1e-08;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVQMMERVVEQMCVTQYQ 20
 Db 199 ETDVQMMERVVEQMCVTQYQ 218

RESULT 15
 AAW85900
 ID AAW85900 standard; peptide; 254 AA.
 XX AAW85900;
 DT 12-FEB-1999 (first entry)
 DE Mouse prion protein (PrP) sequence.
 XX PrP; PrP(Sc); scrapie; isoform; antibody; prion; CJD; screening;
 KW Creutzfeldt-Jakob disease; infectivity; assay; pharmaceutical; food;
 KW Cosmestic; therapeutic; mouse.
 OS Mus sp.
 XX US5846533-A.
 PN 08-DEC-1998.
 PD

```
XX 13-SEP-1996; 96US-00713939.
XX 14-SEP-1995; 95US-00528104.
XX (REGC ) UNIV CALIFORNIA.
XX (SCRI ) SCRIPPS RES INST.
XX Prusiner SB, Williamson RA, Burton DR;
XX WPI; 1999-058996/05.
XX Antibody specific for scrapie isoform of prion protein - useful for
XX diagnosis and therapy.
XX Disclosure; Col 39-42; 58pp; English.
XX This represents a mouse prion protein (PrP) sequence. The invention
XX relates to an antibody that is capable of binding to native PrP(Sc), the
XX scrapie isoform of PrP. The antibody is produced by a method that
XX comprises synthesising a library of antibodies on phages, contacting the
XX phages with a composition containing PrP proteins isolating phages that
XX bind to native PrP(Sc) in situ, obtaining an antibody from the phages
XX and optionally analysing the phages to determine a PrP(Sc) bind sequence
XX encoding in amino acid sequence to which the native PrP(Sc) binds. The
XX antibody is used to detect disease-associated PrP, especially in
XX Creutzfeldt-Jakob disease (CJD) and distinguish it from normal PrP. They
XX can also be used to neutralise the infectivity of PrP(Sc). Assays using
XX the antibodies can be used to screen for disease-associated PrP in
XX pharmaceutical products, foods and cosmetics or for therapeutic purposes
XX
SQ Sequence 254 AA;
Query Match 100.0%; Score 103; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 1.1e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 ETDVQMMERWVEQMCVTOYQ 20
DB 199 ETDVQMMERWVEQMCVTOYQ 218
Search completed: October 26, 2004, 15:42:11
Job time : 49.1667 secs
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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:39:39 ; Search time 49.1667 Seconds
(without alignments)
131.698 Million cell updates/sec

Title: US-09-603-832-7
Perfect score: 103
Sequence: 1 ETDVKMERVVEQMCVTQYQ 20

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1364641 seqs, 323758627 residues
Total number of hits satisfying chosen parameters: 1364641

Minimum DB seq length: 0
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Post-processing: Minimum Match: 0%
Maximum Match 100%
Listing first 45 summaries

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7: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pdb.pdb.*
8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pdb.pdb.*
9: /cgn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pdb.pdb.*
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20: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pdb.pdb.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	103	100.0	124	14	US-10-050-902-324
2	103	100.0	124	14	US-10-050-898-324
3	103	100.0	124	14	US-10-346-190-93
4	103	100.0	164	9	US-09-745-003-12
5	103	100.0	209	16	US-10-470-848-6
6	103	100.0	209	16	US-10-470-848-7
7	103	100.0	225	14	US-10-301-488A-25
8	103	100.0	225	15	US-10-301-448-25
9	103	100.0	226	14	US-10-205-194-121
10	103	100.0	254	9	US-09-823-494-19
11	103	100.0	254	9	US-09-823-494-28
12	103	100.0	254	9	US-09-943-906-1
13	103	100.0	254	13	US-10-106-574-5

14	103	100.0	254	13	US-10-106-574-6
15	103	100.0	254	13	US-10-106-574-7
16	103	100.0	254	13	US-10-106-574-8
17	103	100.0	254	14	US-10-353-780-10
18	103	100.0	254	14	US-10-304-630-20
19	103	100.0	254	14	US-10-304-630-21
20	103	100.0	254	14	US-10-304-630-22
21	103	100.0	254	14	US-10-304-630-23
22	103	100.0	254	14	US-10-301-488A-24
23	103	100.0	254	14	US-10-410-907A-6
24	103	100.0	254	14	US-10-410-907A-7
25	103	100.0	254	14	US-10-410-907A-9
26	103	100.0	254	14	US-10-410-907A-10
27	103	100.0	254	14	US-10-346-190-87
28	103	100.0	254	14	US-10-435-602-1
29	103	100.0	254	14	US-10-438-628-2
30	103	100.0	254	15	US-10-301-448-24
31	103	100.0	254	15	US-10-470-848-5
32	103	100.0	255	16	US-10-470-848-9
33	103	100.0	350	14	US-10-050-902-323
34	103	100.0	350	14	US-10-050-898-323
35	103	100.0	350	14	US-10-346-190-92
36	103	100.0	439	13	US-10-115-984-2
37	102	99.0	263	9	US-09-943-906-3
38	102	99.0	263	14	US-10-435-602-3
39	101	98.1	117	14	US-10-050-902-349
40	101	98.1	117	14	US-10-050-898-349
41	101	98.1	117	14	US-10-346-190-90
42	101	98.1	161	9	US-09-745-003-9
43	101	98.1	256	13	US-10-103-551-2
44	101	98.1	256	13	US-10-103-551-6
45	101	98.1	256	13	US-10-103-551-8

ALIGNMENTS

RESULT 1
US-10-050-902-324
; Sequence 324, Application US/10050902
; Publication No. US20030175290A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Sebbel, Peter
; APPLICANT: Piossek, Christine
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190004
; CURRENT APPLICATION NUMBER: US/10/050,902
; CURRENT FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 324
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: mPrPt construct
US-10-050-902-324

Query Match 100.0%; Score 103; DB 14; Length 124;
Best Local Similarity 100.0%; Pred. No. 1.5e-08;

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Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
Db 80 ETDVKMERVVEQMCVTQYQ 99

RESULT 2
US-10-050-898-324
; Sequence 324, Application US/10050898
; Publication No. US2003017571A1
; GENERAL INFORMATION:
; APPLICANT: Renner, Wolfgang A.
; APPLICANT: Bachmann, Martin
; APPLICANT: Tissot, Alain
; APPLICANT: Maurer, Patrick
; APPLICANT: Lechner, Franziska
; APPLICANT: Seibel, Peter
; APPLICANT: Piossek, Christine
; APPLICANT: Ortmann, Rainer
; APPLICANT: Luond, Rainer
; APPLICANT: Staufenberg, Matthias
; APPLICANT: Frey, Peter
; TITLE OF INVENTION: Molecular Antigen Array
; FILE REFERENCE: 1700.0190005
; CURRENT APPLICATION NUMBER: US/10/050,898
; PRIOR FILING DATE: 2002-01-18
; PRIOR APPLICATION NUMBER: US 60/262,379
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: US 60/288,549
; PRIOR FILING DATE: 2001-05-04
; PRIOR APPLICATION NUMBER: US 60/326,998
; PRIOR FILING DATE: 2001-10-05
; PRIOR APPLICATION NUMBER: US 60/331,045
; PRIOR FILING DATE: 2001-11-07
; NUMBER OF SEQ ID NOS: 350
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 324
; LENGTH: 124
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE: INFORMATION: Protein sequence of mPrPt
; OTHER INFORMATION:
US-10-050-898-324

Query Match 100.0%; Score 103; DB 14; Length 124;
Best Local Similarity 100.0%; Pred. No. 1.5e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
Db 80 ETDVKMERVVEQMCVTQYQ 99

RESULT 3
US-10-346-190-93
; Sequence 93, Application US/10346190
; Publication No. US20030219459A1
; GENERAL INFORMATION:
; APPLICANT: Bachmann, Martin
; APPLICANT: Maurer, Patrick
; APPLICANT: Pelliccioli, Etica
; APPLICANT: Renner, Wolfgang A.
; TITLE OF INVENTION: Prion Protein Carrier-Conjugates
; FILE REFERENCE: 1700.0290003
; CURRENT APPLICATION NUMBER: US/10/346,190
; CURRENT FILING DATE: 2003-01-17
; PRIOR APPLICATION NUMBER: 60/396,590
; PRIOR FILING DATE: 2002-07-18
; PRIOR APPLICATION NUMBER: 60/393,725
; PRIOR FILING DATE: 2002-07-08
; PRIOR APPLICATION NUMBER: 60/389,898
; PRIOR FILING DATE: 2002-06-20

Query Match 100.0%; Score 103; DB 16; Length 209;
Best Local Similarity 100.0%; Pred. No. 1.5e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
Db 80 ETDVKMERVVEQMCVTQYQ 99

RESULT 4
US-09-745-003-12
; Sequence 12, Application US/09745003
; Patent No. US20020042122A1
; GENERAL INFORMATION:
; APPLICANT: Bazan, Fernando J
; TITLE OF INVENTION: Human Proteins; Related Reagents
; FILE REFERENCE: PrP2
; CURRENT APPLICATION NUMBER: US/09/745,003
; CURRENT FILING DATE: 2000-12-20
; NUMBER OF SEQ ID NOS: 13
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 12
; LENGTH: 164
; TYPE: PRT
; ORGANISM: rodent
US-09-745-003-12

Query Match 100.0%; Score 103; DB 9; Length 164;
Best Local Similarity 100.0%; Pred. No. 2.1e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
Db 109 ETDVKMERVVEQMCVTQYQ 128

RESULT 5
US-10-470-848-6
; Sequence 6, Application US/10470848
; Publication No. US20040137421A1
; GENERAL INFORMATION:
; APPLICANT: President of Tohoku University
; TITLE OF INVENTION: Method of Screening for Infection Factor of Prion Disease
; FILE REFERENCE: PH-1224-PCT
; CURRENT APPLICATION NUMBER: US/10/470,848
; CURRENT FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: JP 2001-24279
; PRIOR FILING DATE: 2001-01-31
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 6
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:CHM-type prion protein
US-10-470-848-6

Query Match 100.0%; Score 103; DB 16; Length 209;
Best Local Similarity 100.0%; Pred. No. 1.5e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Best Local Similarity 100.0%; Pred. No. 2.7e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 1 ETDVKMERVVEQMCVTQYQ 20
Db 178 ETDVKMERVVEQMCVTQYQ 197

RESULT 6
US-10-470-848-7
; Sequence 7, Application US/10470848
; Publication No. US20040137421A1
; GENERAL INFORMATION:
; APPLICANT: President of Tohoku University
; TITLE OF INVENTION: Method of Screening for Infection Factor of Prion Disease
; FILE REFERENCE: PH-1224-PCT
; CURRENT APPLICATION NUMBER: US/10/470,848
; PRIOR FILING DATE: 2003-07-31
; PRIOR APPLICATION NUMBER: JP 2001-24279
; NUMBER OF SEQ ID NOS: 10
; SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 7
; LENGTH: 209
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence:Chv type prion protein
US-10-470-848-7

Query Match 100.0%; Score 103; DB 16; Length 209;
Best Local Similarity 100.0%; Pred. No. 2.7e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERVVEQMCVTQYQ 20
Db 178 ETDVKMERVVEQMCVTQYQ 197

RESULT 7
US-10-301-488A-25
; Sequence 25, Application US/10301488A
; Publication No. US20030166558A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,488A
; PRIOR FILING DATE: 2002-11-21
; PRIOR APPLICATION NUMBER: US 60/331,801
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 25
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Rat
US-10-301-488A-25

Query Match 100.0%; Score 103; DB 14; Length 225;
Best Local Similarity 100.0%; Pred. No. 2.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERVVEQMCVTQYQ 20
Db 172 ETDVKMERVVEQMCVTQYQ 191

RESULT 8
US-10-301-448-25
; Sequence 25, Application US/10301448
; Publication No. US2004009564A1
; GENERAL INFORMATION:
; APPLICANT: FRANGIONE, Blas
; APPLICANT: WISNIEWSKI, Thomas
; APPLICANT: SIGURDSSON, Einar
; TITLE OF INVENTION: SYNTHETIC IMMUNOGENIC BUT NON-DEPOSIT-FORMING POLYPEPTIDES AND
; TITLE OF INVENTION: PEPTIDES HOMOLOGOUS TO AMYLOID BETA, PRION PROTEIN, AMYLIN,
; TITLE OF INVENTION: ALPHA-SYNUCLEIN, OR POLYGLUTAMINE REPEATS FOR INDUCTION OF AN
; TITLE OF INVENTION: IMMUNE RESPONSE THERETO
; FILE REFERENCE: 5986/1K434US1
; CURRENT APPLICATION NUMBER: US/10/301,448
; PRIOR FILING DATE: 2003-02-21
; PRIOR APPLICATION NUMBER: US 60/331,801
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 55
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 25
; LENGTH: 225
; TYPE: PRT
; ORGANISM: Rat
US-10-301-448-25

Query Match 100.0%; Score 103; DB 15; Length 225;
Best Local Similarity 100.0%; Pred. No. 2.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERVVEQMCVTQYQ 20
Db 172 ETDVKMERVVEQMCVTQYQ 191

RESULT 9
US-10-205-194-121
; Sequence 121, Application US/10205194
; Publication No. US20030134301A1
; GENERAL INFORMATION:
; APPLICANT: Warner-Lambert Company
; APPLICANT: Lee, Kevin
; APPLICANT: Dixon, Alistair
; APPLICANT: Brooksbank, Robert
; APPLICANT: Pincock, Robert
; TITLE OF INVENTION: Identification and Use of Molecules Implicated in Pain
; FILE REFERENCE: WL-A-018201
; CURRENT APPLICATION NUMBER: US/10/205,194
; CURRENT FILING DATE: 5200-07-24
; PRIOR APPLICATION NUMBER: GB 0118154.0
; PRIOR FILING DATE: 2001-07-27
; NUMBER OF SEQ ID NOS: 177
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 121
; LENGTH: 226
; TYPE: PRT
; ORGANISM: Rattus norvegicus
; FEATURE:
; OTHER INFORMATION: PrP
US-10-205-194-121

Query Match 100.0%; Score 103; DB 14; Length 226;
Best Local Similarity 100.0%; Pred. No. 2.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ETDVKMERVVEQMCVTQYQ 20
Db 172 ETDVKMERVVEQMCVTQYQ 191

RESULT 10
US-09-823-494-19
; Sequence 19, Application US/09823494
; Publication No. US20010041790A1

```
/ GENERAL INFORMATION:
/ APPLICANT: Chesebro, Bruce W
/ APPLICANT: Caughey, Byron W
/ APPLICANT: Chabry, Joelle
/ APPLICANT: Priola, Susette
/ TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
/ TITLE OF INVENTION: Protein
/ FILE REFERENCE: 50121
/ CURRENT APPLICATION NUMBER: US/09/823,494
/ CURRENT FILING DATE: 2001-03-30
/ PRIOR APPLICATION NUMBER: 09/128,450
/ PRIOR FILING DATE: 1998-08-03
/ NUMBER OF SEQ ID NOS: 29
/ SOFTWARE: Patentin Ver. 2.0
/ SEQ ID NO 19
/ LENGTH: 254
/ TYPE: PRT
/ ORGANISM: Mus musculus
US-09-823-494-19

Query Match      100.0%; Score 103; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
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Db 199 ETDVKMMERVVEQMCVTQYQ 218

RESULT 11
US-09-823-494-28
/ Sequence 28, Application US/09823494
/ Publication No. US20010041790A1
/ GENERAL INFORMATION:
/ APPLICANT: Chesebro, Bruce W
/ APPLICANT: Caughey, Byron W
/ APPLICANT: Chabry, Joelle
/ APPLICANT: Priola, Susette
/ TITLE OF INVENTION: Inhibitors of Formation of Protease Resistant Prion
/ TITLE OF INVENTION: Protein
/ FILE REFERENCE: 50121
/ CURRENT APPLICATION NUMBER: US/09/823,494
/ CURRENT FILING DATE: 2001-03-30
/ PRIOR APPLICATION NUMBER: 09/128,450
/ PRIOR FILING DATE: 1998-08-03
/ NUMBER OF SEQ ID NOS: 29
/ SOFTWARE: Patentin Ver. 2.0
/ SEQ ID NO 28
/ LENGTH: 254
/ TYPE: PRT
/ ORGANISM: Mus musculus
US-09-823-494-28

Query Match      100.0%; Score 103; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
   ||||||||||||||||||
Db 199 ETDVKMMERVVEQMCVTQYQ 218

RESULT 12
US-09-943-906-1
/ Sequence 1, Application US/09943906
/ Patent No. US20020150571A1
/ GENERAL INFORMATION:
/ APPLICANT: Prusiner, Stanley B.
/ APPLICANT: Williamson, R. Anthony
/ APPLICANT: Burton, Dennis R.
/ TITLE OF INVENTION: ANTIBODIES SPECIFIC FOR NATIVE PrP
/ NUMBER OF SEQUENCES: 86
/ CORRESPONDENCE ADDRESS:
/
```

```
/ ADDRESSEE: Fish & Richardson P.C.
/ STREET: 2200 Sand Hill Road
/ CITY: Menlo Park
/ STATE: CA
/ COUNTRY: U.S.A.
/ ZIP: 94025
/ COMPUTER READABLE FORM:
/ MEDIUM TYPE: Diskette
/ COMPUTER: IBM Compatible
/ OPERATING SYSTEM: DOS
/ SOFTWARE: FastSeq Version 2.0
/ CURRENT APPLICATION DATA:
/ APPLICATION NUMBER: US/09/943,906
/ FILING DATE: 30-Aug-2001
/ CLASSIFICATION: <Unknown>
/ PRIOR APPLICATION DATA:
/ APPLICATION NUMBER: 09/550,374
/ FILING DATE: <Unknown>
/ ATTORNEY/AGENT INFORMATION:
/ NAME: Bozicevic, Karl
/ REGISTRATION NUMBER: 28,807
/ REFERENCE/DOCKET NUMBER: 06510/059001
/ TELECOMMUNICATION INFORMATION:
/ TELEPHONE: 415-854-5277
/ TELEFAX: 415-854-0875
/ TELEX: <Unknown>
/ INFORMATION FOR SEQ ID NO: 1:
/ SEQUENCE CHARACTERISTICS:
/ LENGTH: 254 amino acids
/ TYPE: amino acid
/ STRANDEDNESS: single
/ TOPOLOGY: linear
/ MOLECULE TYPE: peptide
/ SEQUENCE DESCRIPTION: SEQ ID NO: 1:
US-09-943-906-1

Query Match      100.0%; Score 103; DB 9; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
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Db 199 ETDVKMMERVVEQMCVTQYQ 218

RESULT 13
US-10-106-574-5
/ Sequence 5, Application US/10106574
/ Publication No. US20020164335A1
/ GENERAL INFORMATION:
/ APPLICANT: Harris, David A.
/ APPLICANT: Stewart, Richard S.
/ TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Dis
/ FILE REFERENCE: 09789280.0003
/ CURRENT APPLICATION NUMBER: US/10/106,574
/ CURRENT FILING DATE: 2002-03-26
/ NUMBER OF SEQ ID NOS: 8
/ SOFTWARE: Patentin version 3.1
/ SEQ ID NO 5
/ LENGTH: 254
/ TYPE: PRT
/ ORGANISM: Murinae gen. sp.
US-10-106-574-5

Query Match      100.0%; Score 103; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
   ||||||||||||||||||
Db 199 ETDVKMMERVVEQMCVTQYQ 218
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RESULT 14
US-10-106-574-6
; Sequence 6, Application US/10106574
; Publication No. US20020164335A1
; GENERAL INFORMATION:
; APPLICANT: Harris, David A.
; APPLICANT: Stewart, Richard S.
; TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Dis
; FILE REFERENCE: 09789280.0003
; CURRENT APPLICATION NUMBER: US/10/106,574
; CURRENT FILING DATE: 2002-03-26
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 6
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-106-574-6

Query Match 100.0%; Score 103; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVQMCVTQYQ 20
|||
Db 199 ETDVKMERVVQMCVTQYQ 218

RESULT 15
US-10-106-574-7
; Sequence 7, Application US/10106574
; Publication No. US20020164335A1
; GENERAL INFORMATION:
; APPLICANT: Harris, David A.
; APPLICANT: Stewart, Richard S.
; TITLE OF INVENTION: Compositions and Methods for the Study and Diagnosis of Prion Dis
; FILE REFERENCE: 09789280.0003
; CURRENT APPLICATION NUMBER: US/10/106,574
; CURRENT FILING DATE: 2002-03-26
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 7
; LENGTH: 254
; TYPE: PRT
; ORGANISM: Murinae gen. sp.
US-10-106-574-7

Query Match 100.0%; Score 103; DB 13; Length 254;
Best Local Similarity 100.0%; Pred. No. 3.3e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVQMCVTQYQ 20
|||
Db 199 ETDVKMERVVQMCVTQYQ 218

Search completed: October 26, 2004, 15:46:48
Job time : 49.1667 secs

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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:36:59 ; Search time 11.6667 Seconds
(without alignments)
164.943 Million cell updates/sec

Title: US-09-603-832-7
Perfect score: 103
Sequence: 1 ETDVKMERVVVEQMCVTQYQ 20

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- 1: pir1.*
- 2: pir2.*
- 3: pir3.*
- 4: pir4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	103	100.0	226	2 A53892	prion-related prot
2	103	100.0	254	2 B34759	prion protein - go
3	103	100.0	254	2 A34759	prion protein - Ch
4	103	100.0	254	2 A23544	major prion protei
5	101	98.1	256	2 JU0268	major prion protei
6	101	98.1	264	2 A54330	major prion protei
7	101	98.1	264	2 S37137	prion protein - gr
8	99	96.1	232	2 S71041	major prion protei
9	99	96.1	241	2 S71048	major prion protei
10	99	96.1	241	2 S71056	major prion protei
11	99	96.1	245	2 S71045	major prion protei
12	99	96.1	252	2 161848	major prion protei
13	99	96.1	253	2 1U0HU	major prion protei
14	99	96.1	253	2 S84423	major prion protei
15	99	96.1	253	2 S71055	major prion protei
16	99	96.1	253	2 S53635	prion protein - si
17	99	96.1	253	2 I37032	major prion protei
18	99	96.1	253	2 161847	major prion protei
19	97	94.2	252	2 JC6175	prion protein - ra
20	97	94.2	256	2 S37149	prion protein - go
21	97	94.2	256	2 A54281	major prion protei
22	96	93.2	257	2 J01900	major prion protei
23	94	91.3	245	2 S53627	major prion protei
24	94	91.3	252	2 S53634	major prion protei
25	94	91.3	252	2 S53631	major prion protei
26	94	91.3	253	2 S53624	major prion protei
27	94	91.3	253	2 S53623	major prion protei
28	94	91.3	253	2 S53620	major prion protei
29	94	91.3	253	2 S53625	major prion protei

30	94	91.3	253	2 S53617	major prion protei
31	94	91.3	253	2 S53614	major prion protei
32	94	91.3	253	2 S53616	major prion protei
33	94	91.3	253	2 S53618	major prion protei
34	94	91.3	253	2 S53619	major prion protei
35	94	91.3	254	1 U0HVIH	major prion PrP-Sc
36	94	91.3	257	2 A23545	major prion PrP27-
37	94	91.3	260	2 S53629	major prion protei
38	90	87.4	239	2 S53633	major prion protei
39	50	48.5	267	1 U0CH	major prion protei
40	50	48.5	267	2 A37372	prion protein homo
41	50	48.5	273	2 A46280	prion protein - ch
42	46	44.7	2241	2 S09811	hypothetical prote
43	44	42.7	766	2 T47944	hypothetical prote
44	43	41.7	264	2 I39141	transcription fact
45	43	41.7	319	2 F83402	binding protein co

ALIGNMENTS

RESULT 1

A53892
prion-related protein - rat (fragment)
C:Species: Rattus norvegicus (Norway rat)
C:Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 09-Jul-2004
R:Accession: A53892
R:Idao, Y.C.; Tokes, Z.; Lim, E.; Lackey, A.; Woo, C.H.; Button, J.D.; Clawson, G.A.
Lab. Invest. 57, 370-374, 1987
A:Title: Cloning of rat "prion-related protein" cDNA.
A:Reference number: A53892; MUID:88037055; PMID:2889848
A:Accession: A53892
A:Molecule type: mRNA
A:Status: preliminary
A:Residues: 1-226 <L1A>
A:Cross-references: UNIPROT:P13852; GB:M20313; NID:G206391; PIDN:AAA41947.1; PID:G206391
C:Superfamily: major prion protein

Query Match 100.0%; Score 103; DB 2; Length 226;

Best Local Similarity 100.0%; Pred. No. 2.1e-09;

Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVVEQMCVTQYQ 20

Db 172 ETDVKMERVVVEQMCVTQYQ 191

RESULT 2

B34759
prion protein - golden hamster
C:Species: Mesocricetus auratus (golden hamster)
C:Date: 13-Jul-1990 #sequence_revision 13-Jul-1990 #text_change 13-Aug-1999
R:Accession: B34759
R:Rowenstein, D.H.; Butler, D.A.; Westaway, D.; McKinley, M.P.; Dearmond, S.J.; Prusine
Mol. Cell. Biol. 10, 1153-1163, 1990
A:Title: Three hamster species with different scrapie incubation times and neuropathologic
A:Reference number: A34759; MUID:90158578; PMID:2406562
A:Accession: B34759
A:Status: preliminary
A:Molecule type: DNA
A:Residues: 1-254 <LOW>
A:Cross-references: GB:M33959; NID:g191182; PIDN:AAA37014.1; PID:g191183
C:Superfamily: major prion protein

Query Match 100.0%; Score 103; DB 2; Length 254;

Best Local Similarity 100.0%; Pred. No. 2.4e-09;

Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVVEQMCVTQYQ 20

Db 200 ETDVKMERVVVEQMCVTQYQ 219

A>Note: sequence extracted from NCBI backbone (NCBIN:121620, NCBI:P121621)
 R:Hope, J.; Reekie, L.J.D.; Hunter, N.; Multhaup, G.; Beyreuther, K.; White, H.; Scott, Nature 336, 390-392, 1988
 A:Title: Fibrils from brains of cows with new cattle disease contain scrapie-associated
 A:Reference number: S07347; MUID:89057122; PMID:2904126
 A:Accession: S07347
 A:Molecule type: protein
 A:Residues: 25-36 <HOP>
 R:Prusiner, S.B.; Fuzi, M.; Scott, M.; Serban, D.; Serban, H.; Taraboulos, A.; Gabriel, J. Infect. Dis. 167, 602-613, 1993
 A:Title: Immunologic and molecular biologic studies of prion proteins in bovine spongiform
 A:Reference number: I46931; MUID:93179783; PMID:8440932
 A:Accession: I46931
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-264 <PRU>
 A:Cross-references: GB:S55629; NID:g266111; PIDN:AA825514.1; PID:g266112
 C:Genetics:
 C:Gene: PrP
 C:Superfamily: major prion protein
 C:Keywords: glycoprotein; phosphatidylinositol linkage; polymorphism; tandem repeat
 F:1-24/Domain: signal sequence #status predicted <SIG>
 F:25-264/Product: major prion protein 1 #status predicted <MAT>
 F:60-99/Region: 8-residue repeats (W-G-Q-P-H-G-G-G)
 F:190-225/Disulfide bonds: #status predicted
 F:192,208/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match 98.1%; Score 101; DB 2; Length 264;
 Best Local Similarity 90.0%; Pred. No. 5.3e-09; Mismatches 0; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 DB 211 ETDIKMERVVEQMCITQYQ 230

RESULT 7
 prion protein - greater kudu
 C:Species: Tragelaphus strepsiceros (greater kudu)
 C:Date: 06-Jan-1995 #sequence_revision 06-Jan-1995 #text_change 09-Jul-2004
 C:Accession: S37137
 R:Martin, T.C.; Hughes, S.L.; Hughes, K.J.; Dawson, M.
 submitted to the EMBL Data Library, August 1993
 A:Reference number: S37137
 A:Accession: S37137
 A:Status: preliminary
 A:Molecule type: DNA
 A:Residues: 1-264 <MAR>
 A:Cross-references: UNIPROT:P40242; EMBL:X74771; NID:g398937; PIDN:CAA52781.1; PID:g3989
 C:Superfamily: major prion protein

Query Match 98.1%; Score 101; DB 2; Length 264;
 Best Local Similarity 90.0%; Pred. No. 5.3e-09; Mismatches 0; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 DB 211 ETDIKMERVVEQMCITQYQ 230

RESULT 8
 major prion protein - black-handed spider monkey (fragment)
 C:Species: Ateles geoffroyi (black-handed spider monkey)
 C:Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S71041; S53630
 R:Schatz, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71041
 A:Molecule type: DNA
 A:Residues: 1-232 <SCH>

A:Cross-references: UNIPROT:P40246; EMBL:U08309; NID:g474376; PIDN:AAC50097.1; PID:g474
 R:Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53630
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-194,'R',196-231 <SCW>
 A:Cross-references: EMBL:U08309
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 232;
 Best Local Similarity 90.0%; Pred. No. 1e-08; Mismatches 2; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 DB 184 ETDVKMERVVEQMCITQYQ 203

RESULT 9
 S71048
 major prion protein - Callicebus moloch (fragment)
 C:Species: Callicebus moloch
 C:Date: 27-Oct-1996 #sequence_revision 07-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S71048; S53632
 R:Schatz, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71048
 A:Molecule type: DNA
 A:Residues: 1-241 <SCH>
 A:Cross-references: UNIPROT:P40248; EMBL:U08312; NID:g47585; PIDN:AAC50100.1; PID:g475
 R:Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269
 A:Accession: S53632
 A:Status: nucleic acid sequence not shown
 A:Molecule type: DNA
 A:Residues: 1-203,'R',205-240 <SCW>
 A:Cross-references: EMBL:U08312
 C:Superfamily: major prion protein
 C:Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 241;
 Best Local Similarity 90.0%; Pred. No. 1e-08; Mismatches 2; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 DB 193 ETDVKMERVVEQMCITQYQ 212

RESULT 10
 S71056
 major prion protein - mandrill (fragment)
 C:Species: Papio sphinx, Mandrillus sphinx (mandrill)
 C:Date: 27-Oct-1996 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
 C:Accession: S71056; S53621
 R:Schatz, H.M.
 submitted to the EMBL Data Library, April 1994
 A:Reference number: S71041
 A:Accession: S71056
 A:Molecule type: DNA
 A:Residues: 1-241 <SCH>
 A:Cross-references: UNIPROT:P40255; EMBL:U08303; NID:g474364; PIDN:AAC50091.1; PID:g474
 R:Schatz, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A:Title: Prion protein gene variation among primates.
 A:Reference number: S53614; MUID:95139066; PMID:7837269

A/Accession: S53621
 A/Status: nucleic acid sequence not shown
 A/Molecule type: DNA
 A/Residues: 1-203,'R',205-240 <SCW>
 A/Cross-references: EMBL:U08303
 C:Superfamily: major prion protein
 C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 241;
 Best Local Similarity 90.0%; Pred. No. 1e-08; Mismatches 0; Indels 0; Gaps 0;
 Matches 18; Conservative 2;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 |||||
 DB 193 ETDVKMERVVEQMCITQYE 212

RESULT 11

S71045
 A/Accession: S71045
 A/Molecule type: DNA
 A/Residues: 1-245 <SCH>
 A/Cross-references: UNIPROT:P40250; EMBL:U08292; PIDN:AA050081.1; PID:g4743
 R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A/Title: Prion protein gene variation among primates.
 A/Reference number: S53628; MUID:95139066; PMID:7837269
 A/Accession: S53628
 A/Status: nucleic acid sequence not shown
 A/Molecule type: DNA
 A/Residues: 8-10,'L',12-202,'R',204-239 <SCW>
 A/Cross-references: EMBL:U08292
 C:Superfamily: major prion protein
 C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

submitted to the EMBL Data Library, April 1994
 A/Reference number: S71041

A/Accession: S71045

A/Molecule type: DNA

A/Residues: 1-245 <SCH>

A/Cross-references: UNIPROT:P40250; EMBL:U08292; PIDN:AA050081.1; PID:g4743

R:Schaezel, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.

J. Mol. Biol. 245, 362-374, 1995

A/Title: Prion protein gene variation among primates.

A/Reference number: S53628; MUID:95139066; PMID:7837269

A/Accession: S53628

A/Status: nucleic acid sequence not shown

A/Molecule type: DNA

A/Residues: 8-10,'L',12-202,'R',204-239 <SCW>

A/Cross-references: EMBL:U08292

C:Superfamily: major prion protein

C/Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 245;
 Best Local Similarity 90.0%; Pred. No. 1.1e-08; Mismatches 0; Indels 0; Gaps 0;
 Matches 18; Conservative 2;

QY 1 ETDVKMERVVEQMCVTQYQ 20
 |||||
 DB 192 ETDVKMERVVEQMCITQYE 211

RESULT 12

I61848
 A/Accession: I61848
 A/Status: preliminary; translated from GB/EMBL/DBJ
 A/Molecule type: DNA
 A/Residues: 1-252 <RES>
 A/Cross-references: UNIPROT:P40258; EMBL:U15165; NID:g595852; PIDN:AAA68636.1; PID:g5958
 C:Superfamily: major prion protein

Query Match 96.1%; Score 99; DB 2; Length 252;
 Best Local Similarity 90.0%; Pred. No. 1.1e-08; Mismatches 0; Indels 0; Gaps 0;
 Matches 18; Conservative 2;

QY 1 ETDVKMERVVEQMCVTQYQ 20

DB 199 ETDVKMERVVEQMCITQYE 218
 |||||

RESULT 13

UJHU

major prion protein precursor - human
 N/Alternate names: I1K amyloid protein; 27-30K sialoglycoprotein; PrP 27-30; PrP 33-35C;
 C/Species: Homo sapiens (man)
 C/Date: 25-Oct-1987 #sequence revision 12-Apr-1996 #text change 09-Jul-2004
 C/Accession: A24173; A40372; A05017; S14078; I54322; I58135; I59184; I79633; I7;
 R:Kretschmar, H.A.; Stowring, L.E.; Westaway, D.; Stubblebine, W.H.; Prusiner, S.B.; De
 DNA 5, 315-324, 1986

A/Title: Molecular cloning of a human prion protein cDNA.

A/Reference number: A24173; MUID:86300093; PMID:3755672

A/Accession: A24173

A/Molecule type: mRNA

A/Residues: 1-253 <KRE>

A/Cross-references: UNIPROT:P04156; GB:M33899; NID:g190467; PIDN:AAA60182.1; PID:g190461

Am. J. Hum. Genet. 49, 320-329, 1991

A/Title: Genomic structure of the human prion protein gene.

A/Reference number: A40372; MUID:91328137; PMID:1678248

A/Accession: A40372

A/Status: not compared with conceptual translation

A/Molecule type: DNA

A/Residues: 1-80,89-253 <PUC>

A/Cross-references: GB:X83416; NID:g747846; PIDN:CAA58442.1; PID:g747847

A/Note: The deletion may be a polymorphism; the alternative deletion of 82-89 could not

R:Liaw, Y.C.-J.; Lebo, R.V.; Clawson, G.A.; Smuckler, E.A.

Science 233, 364-367, 1986

A/Reference number: A05017; MUID:86261778; PMID:3014653

A/Accession: A05017

A/Molecule type: mRNA

A/Residues: 8-117,119-253 <LIA>

A/Cross-references: GB:D00015; NID:g220015; PIDN:BAA00011.1; PID:g220016; GB:M13667; NI

R:Tagliavini, F.; Prelli, F.; Ghiso, J.; Bugiani, O.; Serban, D.; Prusiner, S.B.; Farlo

EMBO J. 10, 513-519, 1991

A/Title: Amyloid protein of Gerstmann-Strausler-Scheinker disease (Indiana kindred) is

A/Reference number: S14078; MUID:91160504; PMID:1672107

A/Accession: S14078

A/Molecule type: protein

A/Residues: 58-72,'X',74-76,'XX',79,'XXX',83-86,111-128,'V',130-150 <TAG>

R:Dieckrich, J.F.; Knopman, D.S.; List, J.F.; Olson, K.; Frey, W.H.

Hum. Mol. Genet. 1, 443-444, 1992

A/Title: Deletion in the prion protein gene in a demented patient.

A/Reference number: I54322; MUID:93250789; PMID:1363802

A/Accession: I54322

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: DNA

A/Residues: 9-83,92-240 <RES>

A/Cross-references: GB:M81929; NID:g190517; PIDN:AA059442.1; PID:g190518

A/Accession: I68597

A/Status: translated from GB/EMBL/DBJ

A/Molecule type: DNA

A/Residues: 8-240 <RE3>

A/Cross-references: GB:M81930; NID:g190519; PIDN:AA059443.1; PID:g190520

R:Brown, P.; Goldfarb, L.G.; McCombie, W.R.; Nieto, A.; Squillacote, D.; Sheremata, W.;

Neurology 42, 422-427, 1992

A/Title: Atypical Creutzfeldt-Jakob disease in an American family with an insert mutat

A/Reference number: I58135; MUID:92140671; PMID:1736177

A/Accession: I58135

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: DNA

A/Residues: 51-91,'PHGGGWGQPHGGGWGQPHGGGWGQPHGGGWGQPHGGG' <RE2>

A/Cross-references: GB:S80539; NID:g244698; PIDN:AA021334.1; PID:g244699

R:Goldfarb, L.G.; Brown, P.; McCombie, W.R.; Goldgaber, D.; Swergold, G.D.; Wille, P.R.

Proc. Natl. Acad. Sci. U.S.A. 88, 10926-10930, 1991

A/Title: Transmissible familial Creutzfeldt-Jakob disease associated with five, seven,

A/Reference number: I59184; MUID:92073400; PMID:1683708

A/Accession: I59184

A/Status: translated from GB/EMBL/DBJ

A/Molecule type: DNA

A;Residues: 60-67 <GOL>
 C;Cross-references: GB:S71208; NID:G239877; PIDN:AA20521.1; PID:G239878; GB:S71210; NID:G239879
 C;Genetics:
 A;Gene: GDB:PRNP; CJD; PRIP
 A;Cross-references: GDB:I20720; OMIM:176640; OMIM:137440
 A;Map position: 20pter-20p12
 A;Introns: #status absent
 A;Note: one intron occurs before the initiator codon
 C;Superfamily: major prion protein
 C;Keywords: amyloid; blocked carboxyl end; brain; glycoprotein; lipoprotein; phosphatidy
 F;1-22/Domain: signal sequence #status predicted <SIG>
 F;23-230/Product: major prion protein #status predicted <MAT>
 F;54-92/Region: 8-residue repeats (P-H-G-G-W-G-Q)
 F;231-253/Domain: carboxyl-terminal propeptide #status predicted <CTP>
 F;179-214/Disulfide bonds: #status predicted
 F;181,197/Binding site: carbonylate (Asn) (covalent) #status predicted
 F;230/Modified site: GPI-anchor ethanolamine amidated carboxyl end (Ser) (in mature form)

Query Match 96.1%; Score 99; DB 1; Length 253;
 Best Local Similarity 90.0%; Pred. No. 1.1e-08; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
 DB 200 ETDVKMMERVVEQMCITQYE 219

RESULT 14
 I84423
 Major prion protein precursor - rhesus macaque
 C;Species: Macaca mulatta (rhesus macaque)
 C;Date: 24-May-1996 #sequence revision 24-May-1996 #text_change 09-Jul-2004
 C;Accession: I84423; S53622; S71054
 R;Cervanakova, L.; Brown, P.; Goldfarb, L.G.; Nagle, J.; Rubenstein, R.; D
 Proc. Natl. Acad. Sci. U.S.A. 91, 12159-12162, 1994
 A;Title: Infectious amyloid precursor gene sequences used for experimental b
 A;Reference number: I36907; MUID:95083661; PMID:7991600
 A;Accession: I84423
 A;Status: preliminary; translated from GB/EMBL/DBJ
 A;Molecule type: DNA
 A;Residues: 1-253 <RES>
 A;Cross-references: UNIPROT:P40254; EMBL:U15163; NID:G595850; PIDN:AA68635.1; PID:G5958
 R;Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A;Title: Prion protein gene variation among primates.
 A;Reference number: S53614; MUID:95139066; PMID:7837269
 A;Accession: S53622
 A;Status: nucleic acid sequence not shown
 A;Molecule type: DNA
 A;Residues: 1-210, 'R', 212-253 <SCH>
 A;Cross-references: EMBL:U08307
 R;Schatz1, H.M.
 A;Reference number: S71041
 submitted to the EMBL Data Library, April 1994
 A;Accession: S71054
 A;Molecule type: DNA
 A;Residues: 1-253 <SCW>
 A;Cross-references: EMBL:U08307; NID:G474372; PIDN:AA50095.1; PID:G474373
 C;Superfamily: major prion protein
 C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 253;
 Best Local Similarity 90.0%; Pred. No. 1.1e-08; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
 DB 200 ETDVKMMERVVEQMCITQYE 219

RESULT 15
 S71055

major prion protein - pig-tailed macaque
 C;Species: Macaca nemestrina (pig-tailed macaque)
 C;Date: 14-Feb-1997 #sequence_revision 14-Feb-1997 #text_change 09-Jul-2004
 C;Accession: S71055; S53626
 R;Schatz1, H.M.
 submitted to the EMBL Data Library, April 1994
 A;Reference number: S71041
 A;Accession: S71055
 A;Molecule type: DNA
 A;Residues: 1-253 <SCH>
 A;Cross-references: UNIPROT:P40254; EMBL:U08306; NID:G474370; PIDN:AA50094.1; PID:G474
 R;Schatz1, H.M.; da Costa, M.; Taylor, L.; Cohen, F.E.; Prusiner, S.B.
 J. Mol. Biol. 245, 362-374, 1995
 A;Title: Prion protein gene variation among primates.
 A;Reference number: S53614; MUID:95139066; PMID:7837269
 A;Accession: S53626
 A;Status: nucleic acid sequence not shown
 A;Molecule type: DNA
 A;Residues: 8-210, 'R', 212-247 <SCW>
 A;Cross-references: EMBL:U08306
 C;Superfamily: major prion protein
 C;Keywords: amyloid; brain; glycoprotein; lipoprotein; prion; scrapie

Query Match 96.1%; Score 99; DB 2; Length 253;
 Best Local Similarity 90.0%; Pred. No. 1.1e-08; Indels 0; Gaps 0;
 Matches 18; Conservative 2; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
 DB 200 ETDVKMMERVVEQMCITQYE 219

Search completed: October 26, 2004, 15:44:44
 Job time : 12.6667 secs

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GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: October 26, 2004, 15:34:24 ; Search time 47.9167 Seconds
(without alignments)
240.156 Million cell updates/sec

Title: US-09-603-832-7

Perfect score: 103

Sequence: 1 ETDVNMERVVEQMCVTQYQ 20

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1825181 seqs, 575374646 residues

Total number of hits satisfying chosen parameters: 1825181

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : UniProt_02.*

1: uniprot_sprot.*

2: uniprot_trembl.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	103	100.0	240	2	Q8VHV4 microtus ag
2	103	100.0	248	2	Q8VHV5 clethrionom
3	103	100.0	253	2	Q9Z0T5 meriones un
4	103	100.0	254	1	PRIO_CRIGR
5	103	100.0	254	1	PRIO_CRIMI
6	103	100.0	254	1	PRIO_MOUSE
7	103	100.0	254	1	PRIO_RAT
8	103	100.0	254	1	PRIO_SIGHI
9	103	100.0	254	2	Q9Z0T4
10	103	100.0	254	2	Q9QVT9
11	103	100.0	254	2	Q8VHV6 apodemus sy
12	103	100.0	254	2	RAD19993
13	102	99.0	202	2	Q8VHV5
14	102	99.0	220	2	Q866W7
15	102	99.0	238	1	PRIO_THEGE
16	102	99.0	248	2	Q866V6
17	102	99.0	255	1	PRIO_CAMDR
18	101	98.1	200	2	Q97912
19	101	98.1	204	2	Q97912
20	101	98.1	204	2	Q97912
21	101	98.1	204	2	Q9TS18
22	101	98.1	211	2	Q77787
23	101	98.1	211	2	Q6J6V2
24	101	98.1	212	2	AAT09128
25	101	98.1	212	2	Q97698
26	101	98.1	215	2	Q97904
27	101	98.1	215	2	Q811W3
28	101	98.1	216	2	Q9TV00
29	101	98.1	220	2	O02825
30	101	98.1	220	2	Q7JJ72
31	101	98.1	224	2	Q811W4 spalax leuc

32	101	98.1	226	2	Q97907
33	101	98.1	235	2	Q97695
34	101	98.1	245	2	Q9MZ07
35	101	98.1	250	2	Q866V8
36	101	98.1	251	2	Q866V4
37	101	98.1	255	1	PRIO_CANFA
38	101	98.1	256	1	PRIO_CEREL
39	101	98.1	256	1	PRIO_ODOHE
40	101	98.1	256	1	PRP2_BOVIN
41	101	98.1	256	1	PRP2_TRAST
42	101	98.1	256	2	O02841
43	101	98.1	256	2	O62670
44	101	98.1	256	2	Q6UWU7
45	101	98.1	256	2	Q6UWU8

ALIGNMENTS

RESULT 1
Q8VHV4
ID Q8VHV4 PRELIMINARY; PRT; 240 AA.
AC Q8VHV4
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=Prp;
OS Microtus agrestis (Short-tailed field vole).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Arvicolinae;
OC Microtus.
RX NCBI_TaxID=29092;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'Omo G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
Di Garbo G., Kretschmar H.A., Wolfer D.P., Lipp H.P.;
RL Submitted (APR-2001) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AF367625; AAL5732.1; -.
DR InterPro; IPR00817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
FT NON_TER 1 240
FT NON_TER 240 240
SQ SEQUENCE 240 AA; 26308 MW; BCM4EDD3F5F76693 CRC64;
Query Match 100.0%; Score 103; DB 2; Length 240;
Best Local Similarity 100.0%; Pred No. 1,8e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVNMERVVEQMCVTQYQ 20
DB 192 ETDVNMERVVEQMCVTQYQ 211

RESULT 2
Q8VHV5
ID Q8VHV5 PRELIMINARY; PRT; 248 AA.
AC Q8VHV5
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=Prp;
OS Clethrionomys glareolus (Bank vole).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Arvicolinae;

```

OC Clethrionomys.
OX NCBI_TaxID=51090;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'Ono G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA Di Gardo G., Kretschmar H.A., Wölfer D.P., Lipp H.P.;
RL Submitted (Apr-2001) to the EMBL/GenBank/DBJ databases.
CC -1- SIMILARITY: Belongs to the prion family.
DE EMBL: AF167624; RAL57231.1; -.
DR InterPro: IPR000817; Prion.
DR Pfam: PF00377; Prion_1.
DR Pfam: PF03991; Prion_octapep; 6.
DR PRINTS: SM00341; PRION.
DR SMART: SM00157; PRP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON_TER 248
SQ SEQUENCE 248 AA; 27259 MW; 815E64ECD2773C2C CRC64;

Query Match 100.0%; Score 103; DB 2; Length 248;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
DB 200 ETDVKMERVVEQMCVTQYQ 219

RESULT 3
Q9Z0T5 PRELIMINARY; PRT; 253 AA.
AC Q9Z0T5
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP;
OS Meriones unguiculatus (Mongolian jird) (Mongolian gerbil).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Gerbillinae;
OC Meriones.
OX NCBI_TaxID=10047;
RN [1]
RP SEQUENCE FROM N.A.
RA Wopner F., Weidner G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Scharl H.M.;
RL Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
of flexible regions of the prion protein.;
RT J. Mol. Biol. 249:1163-1178(1999).
CC -1- SIMILARITY: Belongs to the prion family.
DE EMBL: AF117314; RAL1985.1; -.
DR InterPro: IPR000817; Prion.
DR Pfam: PF00377; Prion_1.
DR Pfam: PF03991; Prion_octapep; 6.
DR PRINTS: PR00341; PRION.
DR SMART: SM00157; PRP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON_TER 253
SQ SEQUENCE 253 AA; 27747 MW; B44D16867A97307F CRC64;

Query Match 100.0%; Score 103; DB 2; Length 253;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMERVVEQMCVTQYQ 20
DB 199 ETDVKMERVVEQMCVTQYQ 218

RESULT 4
ID NCBI_CRIGR STANDARD; PRT; 254 AA.
AC Q60506;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
GN Name=PRNP;
OS Cricetus griseus (Chinese hamster).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
OC Cricetus.
OX NCBI_TaxID=10029;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=90158578; PubMed=2406562;
RA Lowenstein D.H., Butler D.A., Westaway D., McKinley M.P.,
RA Dearmond S.J., Prusiner S.B.;
RT "Three hamster species with different scrapie incubation times and
neuropathological features encode distinct prion proteins.";
RL Mol. Cell. Biol. 10:1153-1163(1990).
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
"fibrils".
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEASE: PrP is found in high quantity in the brain of humans and
animals infected with the degenerative neurological diseases Kuru,
Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome
(GSS), scrapie, bovine spongiform encephalopathy (BSE),
transmissible mink encephalopathy (TME), etc.
CC -1- SIMILARITY: Belongs to the prion family.
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or send an email to license@isb-sib.ch).
DE EMBL: M33958; AAA37013.1; -.
DR PIR: A34759; A34759.
DR HSSP: P04925; IAG2.
DR InterPro: IPR000817; Prion.
DR Pfam: PF00377; Prion_1.
DR Pfam: PF03991; Prion_octapep; 6.
DR PRINTS: PR00341; PRION.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
FT SIGNAL 1 22
FT CHAIN 23 231
FT PROPEP 232 254
FT LIPID 231 231
FT DOMAIN 90 231
FT CARBOHYD 181 181
FT CARBOHYD 197 197
FT DISULFID 179 214
FT DOMAIN 51 91
FT REPEAT 51 59
FT REPEAT 67 75
FT REPEAT 68 75
FT REPEAT 76 83
FT REPEAT 84 91
SQ SEQUENCE 254 AA; 27823 MW; 6299CA000EB8607D CRC64;

Query Match 100.0%; Score 103; DB 1; Length 254;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;

```


Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 ETDVKMERVVEQMCVTQYQ 20
 Db 200 ETDVKMERVVEQMCVTQYQ 219

RESULT 5

PRIOR CRIMI
 ID PRIOR CRIMI STANDARD; PRT; 254 AA.
 AC Q60468;
 DT 15-JUL-1998 (Rel. 36, Created)
 DT 15-JUL-1998 (Rel. 36, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
 GN Name=PRNP;
 OS Cricetulus migratorius (Armenian hamster).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Cricetinae;
 OC Cricetulus.
 OX NCBI_TaxID=10032;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Brain;
 RX MEDLINE=90158578; PubMed=2406562;
 RA Lowenstein D.H., Butler D.A., Westaway D., McKinley M.P.,
 RA Dearmond S.J., Prusiner S.B.;
 RT "Three hamster species with different scrapie incubation times and
 RT neuropathological features encode distinct prion proteins.";
 RL Mol. Cell. Biol. 10:1153-1163(1990).
 CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "rods".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
 CC animals infected with the degenerative neurological diseases kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
 CC
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 CC
 CC -----
 CC DR EMBL; M33959; AAA37014.1; -;
 CC DR HSPB; P04925; IAG2.
 CC DR InterPro; IPR000817; Prion.
 CC DR Pfam; PF00377; Prion; 1.
 CC DR Pfam; PF03891; Prion octapep; 6.
 CC DR PRINTS; PR00341; PRION.
 CC DR PROSITE; PS00291; PRION_1; 1.
 CC DR PROSITE; PS00706; PRION_2; 1.
 CC DR Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
 CC SIGNAL
 CC 1 22 By similarity.
 CC FT CHAIN 23 231 Major prion protein.
 CC FT PROPEP 232 254 Removed in mature form.
 CC FT LIPID 231 231 GPI-anchor amidated serine.
 CC FT DOMAIN 90 231 PRP27-30 (PROTEASE RESISTANT CORE).
 CC FT CARBOHYD 181 181 N-linked (GLCNAc...) (By similarity).
 CC FT CARBOHYD 197 197 N-linked (GLCNAc...) (By similarity).
 CC FT DISULFID 179 214 By similarity.
 CC FT DOMAIN 51 91 5 x 8 AA tandem repeats of P-H-G-G-G-W-G-
 CC FT REPEAT 51 59 Q.
 CC FT REPEAT 60 67 1.
 CC FT REPEAT 68 75 2.
 CC FT REPEAT 76 83 3.
 CC FT REPEAT 76 83 4.

FT REPEAT 84 91 5.
 SQ SEQUENCE 254 AA; 27855 MW; 7B963FC6F77F9D0F CRC64;
 Query Match 100.0%; Score 103; DB 1; Length 254;
 Best Local Similarity 100.0%; Pred. No. 1.9e-08;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 ETDVKMERVVEQMCVTQYQ 20
 Db 200 ETDVKMERVVEQMCVTQYQ 219

RESULT 6

PRIOR MOUSE
 ID PRIOR MOUSE STANDARD; PRT; 254 AA.
 AC P04925;
 DT 13-AUG-1987 (Rel. 05, Created)
 DT 01-JAN-1990 (Rel. 13, Last sequence update)
 DT 01-OCT-2004 (Rel. 45, Last annotation update)
 DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C).
 GN Name=Prnp; Synonyms=Prn-p;
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=NZW, and 1/LNJ;
 RX MEDLINE=88052869; PubMed=2890436;
 RA Westaway D., Goodman P.A., Miranda C.A., McKinley M.P., Carlson G.A.,
 RA Prusiner S.B.;
 RT "Distinct prion proteins in short and long scrapie incubation period
 RT mice.";
 RL Cell 51:651-662(1987).
 RN [2]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=8613583; PubMed=3462700;
 RA Locht C., Chesebro B., Race R., Keith J.M.;
 RT "Molecular cloning and complete sequence of prion protein cDNA from
 RT mouse brain infected with the scrapie agent.";
 RL Proc. Natl. Acad. Sci. U.S.A. 83:6372-6376(1986).
 RN [3]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=88166595; PubMed=2894984;
 RA Hope J., Multhaup G., Reekie L.J.D., Kimberlin R.H., Beyreuther K.;
 RT "Molecular pathology of scrapie-associated fibril protein (PrP) in
 RT mouse brain affected by the ME7 strain of scrapie.";
 RL Eur. J. Biochem. 172:271-277(1988).
 RN [4]
 RP SEQUENCE FROM N.A.
 RC STRAIN=NZW; TISSUE=Brain;
 RX MEDLINE=99018115; PubMed=9799790;
 RA Lee I.Y., Westaway D., Smit A.P.A., Wang K., Seto J., Chen L.,
 RA Acharya C., Ankener M., Baskin D., Cooper C., Yao H., Prusiner S.B.,
 RA Hood L.E.;
 RT "Complete genomic sequence and analysis of the prion protein gene
 RT region from three mammalian species.";
 RL Genome Res. 8:1022-1037(1998).
 RN [5]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
 RA Krauss R.L., Feingold E.A., Grouse L.H., Derge J.G.,
 RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
 RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
 RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heide F.,
 RA Skatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
 RA Skapenko M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
 RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
 RA Raha S.S., Locquellano N.A., Peters G.J., Abramson R.D., Mullaly S.J.,
 RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
 RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
 RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
 RA Fahey J., Helton E., Kettman M., Madan A., Rodrigues S., Sanchez A.,

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
 RA Butterfield Y.S.N., Krzywinski W.I., Skalska U., Smallos D.E.,
 RA Schnerch A., Schein J.E., Jones S.J.M., Maira W.A.,
 RT "Generation and initial analysis of more than 15,000 full-length human
 and mouse cDNA sequences.";
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16999-16903(2002).
 RN [6]
 RP SEQUENCE OF 87-164 FROM N.A.
 RX MEDLINE=85213844; PubMed=3923361;
 RA Chesebro B., Race R., Wehrly K., Nishio J., Bloom M., Lechner D.,
 RA Bergstrom S., Robbins K., Mayer L., Keith J.M., Garon C., Haase A.;
 RT "Identification of scrapie prion protein-specific mRNA in scrapie-
 RT infected and uninfected brain.";
 RL Nature 315:331-333(1985).
 RN [7]
 RP STRUCTURE BY NMR OF 120-230.
 RX MEDLINE=96317593; PubMed=8700211;
 RA Riek R., Hornemann S., Wider G., Billeter M., Glockshuber R.,
 RA Wuthrich K.;
 RT "NMR structure of the mouse prion protein domain PrP(121-321).";
 RL Nature 382:180-182(1996).
 RN [8]
 RP STRUCTURE BY NMR OF 23-231.
 RX MEDLINE=97424376; PubMed=9280298;
 RA Riek R., Hornemann S., Wider G., Glockshuber R., Wuthrich K.;
 RT "NMR characterization of the full-length recombinant murine prion
 RT protein, mPrP(23-231).";
 RL FEBS Lett. 413:282-288(1997).
 RN [9]
 RP HYDROXYLATION OF PRO-44.
 RX MEDLINE=20490364; PubMed=11032800;
 RA Gill A.C., Ritchie M.A., Hunt L.G., Steane S.E., Davies K.G.,
 RA Bocking S.P., Rhie A.G.O., Bennett A.D., Hope J.;
 RT "Post-translational hydroxylation at the N-terminus of the prion
 RT protein reveals presence of PPII structure in vivo.";
 RL EMBO J. 19:5324-5331(2000).
 CC -!- FUNCTION: the function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "folds".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: Found in high quantity in the brain of humans and animals
 CC infected with degenerative neurological diseases such as kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Strausler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
 CC -----
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 CC -----
 DR EMBL; M18070; AAA39997.1; -;
 DR EMBL; M18071; AAA39998.1; -;
 DR EMBL; M13685; AAA39996.1; -;
 DR EMBL; U29186; AAC02804.1; -;
 DR EMBL; BC006703; AA06703.1; -;
 DR EMBL; M30384; AAA39999.1; -;
 DR PIR; A29669; A23544.
 DR PDB; 1AG3; NMR; @123-225.
 DR MGB; MGI-97769; Prnp
 DR GO; GO:0005783; C:endooplasmic reticulum; IDA.
 DR GO; GO:0005734; C:Golgi apparatus; IDA.
 DR GO; GO:004321; C:lipid raft; IDA.
 DR GO; GO:0005507; F:copper ion binding; IDA.
 DR GO; GO:0006979; P:response to oxidative stress; IDA.
 DR InterPro; IPR000817; Prion.

DR Pfam; PF00377; Prion; 1.
 DR Pfam; PF03991; Prion octapep; 6.
 DR PRINTS; PR00341; PRION.
 DR PROSITE; PS00291; PRION_1; 1.
 DR PROSITE; PS00706; PRION_2; 1.
 KW 3D-structure; Glycoprotein; GPI-anchor; Hydroxylation; Lipoprotein;
 KW Polymorphism; Prion; Repeat; Signal.
 FT SIGNAL 1 22
 FT CHAIN 23 230 Major prion protein.
 FT PROPEP 231 254 Removed in mature form (By similarity).
 FT MOD_RES 44 44 Hydroxyproline.
 FT LIPID 230 230 GPI-anchor amidated serine (By
 similarity).
 FT CARBOHYD 180 180 N-linked (GlcNAc...) (Probable).
 FT CARBOHYD 196 196 N-linked (GlcNAc...) (Probable).
 FT DISULFID 178 213 5 X 8 AA tandem repeats of P-H-G-G-G-W-G-
 FT DOMAIN 51 90 Q.
 FT REPEAT 51 58 1.
 FT REPEAT 59 66 2.
 FT REPEAT 67 74 3.
 FT REPEAT 75 82 4.
 FT REPEAT 83 90 5.
 FT VARIANT 108 108 L -> F (linked to long incubation time).
 FT VARIANT 189 189 T -> V (linked to long incubation time).
 FT CONFLICT 133 133 M -> V (in Ref. 2 and 6).
 FT TURN 124 126
 FT STRAND 128 129
 FT HELIX 143 152
 FT TURN 153 155
 FT STRAND 161 162
 FT TURN 171 191
 FT TURN 192 194
 FT HELIX 199 221
 FT TURN 222 224
 SQ SEQUENCE 254 AA; 27977 MW; D5331B6321826CC0 CRC64;
 Query Match 100.0%; Score 103; DB 1; Length 254;
 Best Local Similarity 100.0%; Pred. No. 1.9e-08;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 ETDVMMRVVEQMCVTQYQ 20
 Db 199 ETDVMMRVVEQMCVTQYQ 218
 RESULT 7
 PRIO_RAT
 ID PRIO_RAT STANDARD; PRT; 254 AA.
 AC F13852;
 DT 01-JAN-1990 (Rel. 13, Created)
 DT 01-NOV-1997 (Rel. 35, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP).
 GN Name=Prnp; Synonyms=Prn;
 OS Rattus norvegicus (Rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC STRAIN=Zitter, and SJ/D; TISSUE=Liver;
 RX MEDLINE=94232539; PubMed=7909925;
 RA Gomi H., Ikeda T., Kunieda T., Itohara S., Prusiner S.B.,
 RA Yamanouchi K.;
 RT "Prion protein (PrP) is not involved in the pathogenesis of spongiform
 RT encephalopathy in zitter rats.";
 RL Neurosci. Lett. 166:171-174(1994).
 RN [2]
 RP SEQUENCE FROM N.A.
 RC STRAIN=WiStar; TISSUE=Liver;
 RX MEDLINE=97033369; PubMed=8879116;
 RA Saeki K., Matsumoto Y., Hirota Y., Matsumoto Y., Onodera T.;

RT "Three-exon structure of the gene encoding the rat prion protein and
 RL its expression in tissues.",
 RN Virus Genes 12:15-20(1996).
 RP [3]
 RX SEQUENCE OF 29-254 FROM N.A.
 RA MEDLINE=88037055; PubMed=2889848;
 RA Liao Y.-C., Tokes Z., Lim E., Lackey A., Woo C.H., Button J.D.,
 RA Clawson G.A.;
 RT "Cloning of rat 'prion-related protein' cDNA";
 RL Lab. Invest. 57:370-374(1987).
 CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "rods".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: Found in high quantity in the brain of humans and animals
 CC infected with degenerative neurological diseases such as kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
 CC -----
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 CC -----
 DR EMBL; S69654; AAB30728.2; -;
 DR EMBL; D50093; BAA08790.1; -;
 DR EMBL; M20113; AAA41947.1; -;
 DR PIR; A53892; A53892.
 DR HSSP; P04925; IAG2.
 DR RGD; 3410; Prnp.
 DR InterPro; IPR000817; Prion.
 DR Pfam; PF00377; Prion; 1.
 DR Pfam; PF03991; Prion octapep; 6.
 DR PRINTS; PR00341; PRION.
 DR PROSITE; PS00291; PRION 1; 1.
 DR PROSITE; PS00706; PRION 2; 1.
 KW Glycoprotein; GPI-anchor; Lipoprotein; Prion; Repeat; Signal.
 FT SIGNAL 1 28 Potential.
 FT CHAIN 29 231 Major prion protein.
 FT PROPEP 232 254 Removed in mature form (By similarity).
 FT LIPID 231 231 GPI-anchor amidated serine (By
 FT similarity).
 FT CARBOHYD 181 181 N-linked (GlcNAc...) (Probable).
 FT CARBOHYD 197 197 N-linked (GlcNAc...) (Probable).
 FT DISULFID 179 214 By similarity.
 FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-W-G-
 FT Q. 1.
 FT REPEAT 51 59 1.
 FT REPEAT 60 67 2.
 FT REPEAT 68 75 3.
 FT REPEAT 76 83 4.
 FT REPEAT 84 91 5.
 SQ SEQUENCE 254 AA; 27804 MW; 28F424D13BFA2C6 CRC64;
 Query Match 100.0%; Score 103; DB 1; Length 254;
 Best Local Similarity 100.0%; Pred. No. 1.9e-08;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMRRVVEQMCVTQYQ 20
 DB 200 ETDVKMRRVVEQMCVTQYQ 219

RESULT 8
 PIR: SIGHI
 ID: PIR: SIGHI
 AC: Q920T3; STANDARD; PRT; 254 AA.

DT 28-FEB-2003 (Rel. 41, Created)
 DT 28-FEB-2003 (Rel. 41, Last sequence update)
 DT 05-JUL-2004 (Rel. 44, Last annotation update)
 DE Major prion protein precursor (PrP).
 GN Name=PRNP; Synonyms=PRP;
 OS Sigmodon hispidus (Hispid cotton rat).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
 OC Sigmodon.
 OX NCBI_TaxID=42415;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Brain;
 RX MEDLINE=99303687; PubMed=10373359;
 RA Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
 RA Schwarz T.F., Werner T., Schatzl H.M.;
 RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
 RT of flexible regions of the prion protein.";
 RL J. Mol. Biol. 289:1163-1178(1999).
 CC -!- FUNCTION: The function of PrP is not known. PrP is encoded in the
 CC host genome and is expressed both in normal and infected cells.
 CC -!- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
 CC "rods".
 CC -!- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
 CC -!- DISEASE: PrP is found in high quantity in the brain of humans and
 CC animals infected with the degenerative neurological diseases kuru,
 CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Straussler syndrome
 CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
 CC transmissible mink encephalopathy (TME), etc.
 CC -!- SIMILARITY: Belongs to the prion family.
 CC -----
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
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 CC or send an email to license@isb-sib.ch).
 CC -----
 DR EMBL; AF117325; AAD19996.1; -;
 DR HSSP; P04925; IAG2.
 DR InterPro; IPR000817; Prion.
 DR Pfam; PF00377; Prion; 1.
 DR Pfam; PF03991; Prion octapep; 6.
 DR PRINTS; PR00341; PRION.
 DR PROSITE; PS00291; PRION 1; 1.
 DR PROSITE; PS00706; PRION 2; 1.
 KW Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
 FT SIGNAL 1 22 By similarity.
 FT CHAIN 23 231 Major prion protein.
 FT PROPEP 232 254 Removed in mature form (By similarity).
 FT DOMAIN 51 91 5 X 8 AA tandem repeats of P-H-G-G-W-G-
 FT Q. 1.
 FT REPEAT 51 59 1.
 FT REPEAT 60 67 2.
 FT REPEAT 68 75 3.
 FT REPEAT 76 83 4.
 FT REPEAT 84 91 5.
 FT DISULFID 179 214 By similarity.
 FT LIPID 231 231 GPI-anchor amidated serine (By
 FT similarity).
 FT CARBOHYD 181 181 N-linked (GlcNAc...) (Potential).
 FT CARBOHYD 197 197 N-linked (GlcNAc...) (Potential).
 SQ SEQUENCE 254 AA; 27874 MW; 50C464D516E572DF CRC64;
 Query Match 100.0%; Score 103; DB 1; Length 254;
 Best Local Similarity 100.0%; Pred. No. 1.9e-08;
 Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMRRVVEQMCVTQYQ 20
 DB 200 ETDVKMRRVVEQMCVTQYQ 219

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RA Heinrich C., Karunaratne A., Pasternak S.H., Chishti M.A., Liang Y.,
RA Mastrangelo P., Wang K., Smit A.F.A., Katamine S., Carlson G.A.,
RA Cohen F.E., Prusiner S.B., Melton D.W., Tremblay P., Hood L.E.,
RA Westaway D.;
RT "Ataxia in prion protein (PrP)-deficient mice is associated with
RT upregulation of the novel PrP-like protein doppel.";
RL J. Mol. Biol. 292:797-817(1999).
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; U29187; RAD41440.1; -.
DR HSSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion.Octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 254 AA; 28010 MW; DF90D0CEE586CC0 CRC64;

Query Match 100.0%; Score 103; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
DB 199 ETDVKMMERVVEQMCVTQYQ 218

RESULT 11
Q8VHV6 PRELIMINARY; PRT; 254 AA.
AC Q8VHV6
DT 01-MAR-2002 (TrEMBLrel. 20, Created)
DT 01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein.
GN Name=PrP;
OS Apodemus sylvaticus (European woodmouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
OC Apodemus.
OX NCBI_TaxID=10129;
RN [1]
RP SEQUENCE FROM N.A.
RA Dell'Omo G., Agrimi U., Di Bari M., Windl O., Vaccari G., Nonno R.,
RA Di Cardo G., Kretschmar H.A., Wolfer D.P., Lipp H.P.;
RA Submitted (Apr-2001) to the EMBL/GenBank/DBJ databases.
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AF367623; AAL57230.1; -.
DR HSSP; P04925; IAG2.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion.Octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
SQ SEQUENCE 254 AA; 27857 MW; CB2E5658C47A8895 CRC64;

Query Match 100.0%; Score 103; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
DB 200 ETDVKMMERVVEQMCVTQYQ 219

RESULT 12
AAD19993 PRELIMINARY; PRT; 254 AA.
ID AAD19993

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RA Q920T4 PRELIMINARY; PRT; 254 AA.
AC Q920T4
DT 01-MAY-1999 (TrEMBLrel. 10, Created)
DT 01-MAY-1999 (TrEMBLrel. 10, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP;
OS Sigmodon fulviventer (tawny-bellied cotton rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
OC Sigmodon.
OX NCBI_TaxID=89246;
RN [1]
RP SEQUENCE FROM N.A.
RA TISSUE=Brain;
RA MEDLINE=9903697; PubMed=10373359;
RA Wopfinger F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -!- SIMILARITY: Belongs to the prion family.
DR EMBL; AF117324; AAD19995.1; -.
DR InterPro; IPR000817; Prion.
DR Pfam; PF00377; Prion; 1.
DR Pfam; PF03991; Prion.Octapep; 6.
DR PRINTS; PR00341; PRION.
DR SMART; SM00157; PRP; 1.
DR PROSITE; PS00291; PRION_1; 1.
DR PROSITE; PS00706; PRION_2; 1.
KW Prion.
FT NON TER 254 254
SQ SEQUENCE 254 AA; 27904 MW; 9EE7E1D106B43B97 CRC64;

Query Match 100.0%; Score 103; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMMERVVEQMCVTQYQ 20
DB 200 ETDVKMMERVVEQMCVTQYQ 219

RESULT 10
Q9QYT9 PRELIMINARY; PRT; 254 AA.
AC Q9QYT9
DT 01-MAY-2000 (TrEMBLrel. 13, Created)
DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT 01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE Long incubation prion protein.
GN Name=Prnpb;
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA MEDLINE=99018115; PubMed=9799790;
RA Lee I.Y., Westaway D., Smit A.F., Wang K., Seto J., Chen L.,
RA Acharya C., Ankenster M., Baskin D., Cooper C., Yao H., Prusiner S.B.,
RA Hood L.E.;
RT "Complete genomic sequence and analysis of the prion protein gene
RT region from three mammalian species.";
RL Genome Res. 8:1022-1037(1998).
RN [2]
RP SEQUENCE FROM N.A.
RA MEDLINE=99457485; PubMed=10525406;
RA Moore R.C., Lee I.Y., Silverman G.L., Harrison P.M., Strome R.,

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AC AAD19993;
DT 02-MAR-2004 (TReMBLrel. 27, Created)
DT 02-MAR-2004 (TReMBLrel. 27, Last sequence update)
DE 02-MAR-2004 (TReMBLrel. 27, Last annotation update)
DE Prion protein (Fragment).
GN Rattus norvegicus (Rat).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=brain;
RX MEDLINE=99303687; PubMed=10373359;
RA Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.;
RT "Analysis of 27 mammalian and 9 avian PrPs reveals high conservation
RT of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
DR EMBL: AF117322; AAD19993.1;
FT NON TER 254 254
SQ SEQUENCE 254 AA; 27804 MW; 28F424D13BEFA2C6 CRC64;

Query Match 100.0%; Score 103; DB 2; Length 254;
Best Local Similarity 100.0%; Pred. No. 1.9e-08;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMWERVVEQMCVTQYQ 20
DB 200 ETDVKMWERVVEQMCVTQYQ 219

RESULT 13
O97696
AC O97696 PRELIMINARY; PRT; 202 AA.
DT 01-MAY-1999 (TReMBLrel. 10, Created)
DT 01-MAY-1999 (TReMBLrel. 10, Last sequence update)
DE 01-OCT-2003 (TReMBLrel. 25, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrP;
OS Lama glama (Llama).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Tylopoda; Camelidae; Lama.
OX NCBI_TaxID=9844;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=99303687; PubMed=10373359;
RA Wopfner F., Weidenhofer G., Schneider R., von Brunn A., Gilch S.,
RA Schwarz T.F., Werner T., Schatzl H.M.; PrPs reveals high conservation
RT of flexible regions of the prion protein.";
RL J. Mol. Biol. 289:1163-1178(1999).
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL: AF113943; AAD13291.1;
DR InterPro: IPR000817; Prion.
DR Pfam: PF03991; Prion_1;
DR SMART: SM00157; PrP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON TER 202 202
SQ SEQUENCE 202 AA; 21860 MW; FC45232DB773F354 CRC64;

Query Match 99.0%; Score 102; DB 2; Length 202;
Best Local Similarity 95.0%; Pred. No. 2.2e-08;
Matches 19; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMWERVVEQMCVTQYQ 20
DB 163 ETDVKMWERVVEQMCVTQYQ 182

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RESULT 14
Q866W7
ID Q866W7 PRELIMINARY; PRT; 220 AA.
AC Q866W7;
DT 01-JUN-2003 (TReMBLrel. 24, Created)
DT 01-JUN-2003 (TReMBLrel. 24, Last sequence update)
DT 01-MAR-2004 (TReMBLrel. 26, Last annotation update)
DE Prion protein (Fragment).
GN Name=PrNP;
OS Ochotona princeps (Southern American pika).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Lagomorpha; Ochotonidae; Ochotona.
OX NCBI_TaxID=5978;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=22408137; PubMed=12519913;
RA van Rheede T., Smolenaars M.M., Madsen O., De Jong W.W.;
RT "Molecular evolution of the mammalian prion protein.";
RL Mol. Biol. Evol. 20:111-121(2003).
CC -1- SIMILARITY: Belongs to the prion family.
DR EMBL: AY133036; AAN16490.1;
DR InterPro: IPR000817; Prion.
DR Pfam: PF03991; Prion Octapep; 5.
DR PRINTS: PR00341; PRION.
DR SMART: SM00157; PrP; 1.
DR PROSITE: PS00291; PRION_1; 1.
DR PROSITE: PS00706; PRION_2; 1.
KW Prion.
FT NON TER 220 220
SQ SEQUENCE 220 AA; 23872 MW; 5318CF0BE39FB669 CRC64;

Query Match 99.0%; Score 102; DB 2; Length 220;
Best Local Similarity 95.0%; Pred. No. 2.4e-08;
Matches 19; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMWERVVEQMCVTQYQ 20
DB 175 ETDVKMWERVVEQMCVTQYQ 194

RESULT 15
PRIO_THEGE
ID PRIO_THEGE STANDARD; PRT; 238 AA.
AC Q85270;
DT 01-NOV-1997 (Rel. 35, Created)
DT 01-NOV-1997 (Rel. 35, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Major prion protein precursor (PrP) (PrP27-30) (PrP33-35C) (Fragment).
GN Name=PrNP; Synonyms=PRP;
OS Theropithecus gelada (Gelada baboon).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Cercopithecoidea;
OC Cercopithecinae; Theropithecus.
OX NCBI_TaxID=9565;
RN [1]
RP SEQUENCE FROM N.A.
RA van der Kuyl A.C., Dekker J.T., Goudsmit J.;
RT "Evidence for an increased substitution rate of the hominoid prion
RT protein gene during the period of brain expansion.";
RL Submitted (NOV-1996) to the EMBL/GenBank/DBJ databases.
CC -1- FUNCTION: The function of PrP is not known. PrP is encoded in the
CC host genome and is expressed both in normal and infected cells.
CC -1- SUBUNIT: PrP has a tendency to aggregate yielding polymers called
CC "fibrils".
CC -1- SUBCELLULAR LOCATION: Attached to the membrane by a GPI-anchor.
CC -1- DISEAS: PrP is found in high quantity in the brain of humans and
CC animals infected with the degenerative neurological diseases kuru,
CC Creutzfeldt-Jakob disease (CJD), Gerstmann-Sträussler syndrome
CC (GSS), scrapie, bovine spongiform encephalopathy (BSE),
CC transmissible mink encephalopathy (TME), etc.

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CC  -!- SIMILARITY: Belongs to the prion family.
CC  -----
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CC  or send an email to license@isb-sib.ch).
CC  -----
DR  EMBL; U75383; AAB50630.1; -.
DR  HSSP; P23907; IG04.
DR  InterPro; IPR000817; Prion.
DR  Pfam; PF00377; Prion; 1.
DR  Pfam; PF03991; Prion.Octapep; 5.
DR  PRINTS; PR00341; PRION.
DR  PROSITE; PS00291; PRION 1; 1.
DR  PROSITE; PS00706; PRION 2; 1.
KW  Glycoprotein; GPI-anchor; Lipoprotein; Membrane; Prion; Repeat;
FT  Signal.
FT  NON_TER 1 1
FT  SIGNAL <1 15 By similarity.
FT  CHAIN 16 215 Major prion protein.
FT  PROPEP 216 >238 Removed in mature form (By similarity).
FT  DISULFID 164 199 By similarity.
FT  LIPID 215 215 GPI-anchor amidated serine (By
FT  CARBOHYD 166 166 similarity).
FT  CARBOHYD 182 182 N-linked (GlcNAc..)(Potential).
FT  DOMAIN 44 83 N-linked (GlcNAc..)(Potential).
FT  REPEAT 44 52 4 X 8 AA tandem repeats of P-H-G-G-G-W-G-
FT  REPEAT 53 60 Q.
FT  REPEAT 61 68 1.
FT  REPEAT 69 76 2.
FT  NON_TER 238 238 3.
FT  NON_TER 238 238 4.
SQ  SEQUENCE 238 AA; 26104 MW; 5F59BFF602243EDB CRC64;

Query Match 99.0%; Score 102; DB 1; Length 238;
Best Local Similarity 95.0%; Pred. No. 2.6e-08;
Matches 19; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 1 ETDVKMWRVVEQMCVTQYQ 20
Db 185 ETDVKMWRVVEQMCITQYQ 204

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 Job time : 48.9167 secs